Treatment for Different Stages of Life -Fingerhood

SUMMARY KEYWORDS

older adults, adolescents, cannabis, substance, alcohol, younger adults, increased, question, drinks, impact, substance use disorder, medication, individuals, treatment, emphasize, early, opioid, populations, age, related

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This presentation is entitled Treatment for Different Stages of Life: Adolescents, Young Adults and the Elderly. I will now turn it over to Dr. Michael Fingerhood to begin our presentation.

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Thank you. So and welcome to this presentation that looks at the two ends of life: early in life and later in life. I encourage you to put questions in the chat. I'll do my best to answer them. They'll also be a few poll questions. And you'll see the flavor of those as we get into the presentation.

So I have no financial disclosures. So learning objective is to describe how the different life stages of a patient could impact development, diagnosis and treatment of addiction.

The outline is again that we're going to focus on early in life, which is adolescents and young adults. And then older adults, which I always think changes because it's generally someone that's much older than yourself.

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But adolescence is the stage in life that we don't like to reflect on generally in a positive way. It's biological growth and development, a lot of social pressures, increased decision making. And I think the most difficult part is really the search for self.

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The substances that that are focused on as we think about adolescents, young adults, is really probably the largest variety of substances. The ones on top are common, and you'll- there'll be other talks on these as well. We'll focus a little bit on vaping in a while because that seems especially prevalent in younger adults. Cannabis and alcohol, the most prevalent you'll see some recent data, but most of all in younger adults. You'll see lots of experimenting- inhalants, including nitrous and others. We recently saw someone who was on our council service who was huffing freon, we've seen people who have also the sprays that clean computer keyboards.

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You'll see MDMA and I just want to emphasize that MDMA is not synonymous with ecstasy as much. Ecstasy on the street has dubious chemical structure, synthetic cannabinoids, which are clearly marketed at younger adults with often packaging that is inviting with cartoon figures and they're sold in gas station shops. PCP, which comes in waves and geographic areas. Canthinones, or so called bath salts, which they are not. Stimulants, especially you'll see on college campuses. Amphetamine derivatives are encouraged even during- especially during exam test time. Kratom and salvia which are often seen as, quote, "natural" or "safer" substances that provide a change in mood.

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So adolescents are vulnerable and early substance use does increase the height of the risk of addiction. Adolescent immaturity during critical development period equals vulnerability, right. There's impulsiveness and excitement seeking, delayed gratification is difficult. So rapid gratification first, for instance, that you'd rather have \$5 today than \$10 tomorrow. You'd rather have the effect right now, then then realize what the consequences might be. And in general there's poor executive function, and inhibitory control. So the inhibitory neurons aren't as well developed. And instances that are risky in which inhibition should take hold, does not.

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So what are the associated factors in younger adults: is having a parent with a substance use disorder, presence of mood disorder, learning disorder or poor school performance, early sexual activity, low self-esteem, substance-using peers, availability of substances in communities, so individuals are going to be using what's around them, and poor family dynamics and family conflict. These all are potential associated factors.

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This is a look at from the most recent household survey of substance use by high school students. I think there's no surprise there that the most common are the ones on the bottom: cigarettes, marijuana, e-cigarettes, alcohol. In the past year, there's finally been some hope that perhaps e-cigarettes are making some improvements as some e-cigarette products were removed from market and Juul is less, is not more available. It is important to realize how much more common e-cigarettes are than actual cigarettes, and that the other drugs at the top are significantly much less common in younger adults.

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So these are just some highlights from that study just to pick out a few data points. for alcohol, a third of 12th graders within the past month have used alcohol although there appears to be less than binge drinking. Less synthetic cannabinoid use- fell for 12th graders from 5.8% and 3.3% Vaping still common and I think that number is going to come down some but you can see almost a third of 12th graders are currently using vaping product. Heroin use in the past year, it was still very low. Obviously, this would be shifting to fentanyl now in 2023. And there is concern of the fact that injection drug use increased among adolescents in many urban areas. And with that, there's been also an increase in comorbid alcohol and opioid use, which sort of increases risks of overdose.

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These are some recent trends beyond the household study that I just showed you, in papers published within the past year or so. Overall from 2020 to 21, it appears that teen substance use has declined. But the worrisome aspect, which was reported in this paper in JAMA, that overdose deaths increased 94% from 2019 to 2020, largely due to fentanyl. And this is perhaps an underestimate of what's going on now because this is again pre-COVID. And the early years of COVID there was clearly more people using alone and this undoubtedly increased the risk of opioid overdose not just among overall populations but teens as well.

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Stimulant-involved drug overdoses appear to be rising among youth, certainly an alarm. Very geographic. Most of this was methamphetamine- greatest rise in 11 to 14 year olds, which is alarming. Inhalant use associated with violence, criminal activity, other substance use disorder, school dropouts- are particularly worrisome. For college students, depressive symptoms associated with non-medical prescription drug use. So certainly a reason to be clued into depressive symptoms and to ask more questions related to drug use. Past year non-medical use of prescription medication was 20%, which is quite high and higher among males and interesting members of fraternities and sororities.

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This is a brief screening tool for adolescent substance use, it's still called... the original survey still says abuse. And they're useful questions that are geared towards teens. I'll editorialize afterwards. So the C is have you ever ridden in a Car driven by someone, including yourself, who was high using alcohol and drugs? Ever use alcohol or drugs to Relax or fit in? Do you ever use alcohol or drugs while you're by yourself- Alone? Do your family or Friends ever tell you that you should cut down on your drinking and drug use? Do you ever Forget things you did while using alcohol or drugs? And have you ever gotten into Trouble or using drugs?

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So this is a validated tool with two or more ves answers. I have to say that this was developed pre-

share-ride apps. And that- so the C I think is less common as I become aware and see younger adults as young adults as much more likely to not drive or get in a car because of the availability of rideshare.

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Then there's also a CRAFFT that's specific for nicotine- looking at those, especially related to ecigarettes and such. And you can see that that that's someone who uses nicotine that these questions are useful in order to assess the impact that nicotine and the vaping devices have had on the person including attempts to quit, feeling of addiction, craving, hiding, or hard to keep from using in places where you shouldn't. And what happens when you try to stop. It's really meant to clue in and to understand the impact and hopefully create a plan in order to help.

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So this is the big question. I think every year this changes slightly as more and more states have approved recreational cannabis use. And adolescents, therefore, view cannabis in a different way. It is clear that adolescents are a vulnerable population. As are other individuals with psychiatric illness or other substance use disorders, that there are consequences of intoxication.

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States that have legalized recreational use, there are clear evidence that there's increased driving under the influence of cannabis. For, especially for adolescents, there can be impact on learning. And there's concern about progression to cannabis use disorders and other substance use disorders.

However, there's differences in vulnerability, right, so conditional risk of use disorders can be as high 40%. Daily use is really where we're become more concerned. So someone under the age of 17, we're doing a variety of studies to look at the odds ratio for developing, for instance, a later cannabis use disorder is huge at 18. School dropout odds ratio is three. Use of other drugs, odds ratio is eight. Suicide attempts, odd ratio of seven. So these are huge odds ratios that are associated, that have happened as a result of daily use of cannabis before the age of 17.

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And this is the tempering slide, right? Cannabis is addictive, but not everyone gets addicted. Cannabis can be harmful. But not everyone gets harmed. And broader use leads to broader problem use through access and decreased perceived harm. And how do we address this in youth and other vulnerable populations? I think we have to do it carefully and accurately.

So when we think about treatment for adolescents, there are a lot of barriers to treatments. Adolescents or young adults may think they're invincible; they tend to address problems with a lack of maturity. That you have to try to make treatment appealing. And you have to make sure that you try your best to not make it appear that treatment is a burden, or the treatment is a punishment. There's variable effectiveness of family leverage. I think you have to be careful in how you use family; you have to use family in a positive way. There's often pushback against a sense of parental dependence and restriction. And you also have to be aware of comorbidities, especially psychiatric comorbidities.

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So again, this is the balancing act. Adolescents rely on the support of adults, but also want to be autonomous, right. So we try to emphasize rewards and praise. We really try to individualize, emphasize adolescent learning styles, energetic fun activities. The approach is very different than than someone in their 50s going to an AA meeting, right? So we emphasize social alternatives to drug use, acknowledge the attraction of thrill-seeking and risk, right, acknowledge, right? So it's something that usual like so we don't want to dissuade and we want to understand and acknowledge that we understand that that's part of the reason for abuse.

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And management of disruptive behavior is expected; really balancing is the important parts. And to to create positive supports: families, and friends, but expect that it's often more difficult in younger adults than it is in other populations.

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So making the adolescent part of their treatment plan is really important. I often will come up with alternative treatments or or a menu of things that would be reasonable and have the adolescent choose the steps that they want to take, because therefore they're part of creating the plan. Right, so you give some rope and not too much and you don't enable. Certainly, counseling and emotion regulation can help. Sleep I think is an under-emphasized aspect. Adolescents needs sleep. And certainly adequate sleep is an essential part of recovery for individuals, young adults and older adults with substance use disorders. And you might need to rehearse situations, so vulnerable situations: school around certain people. And the often difficult part is the realization that that's the people who adolescents use with or people they use with, and not necessarily truly their friends. Not effective are the obvious things like "Just grow up, just say no."

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So these are some of the motivational approaches: Do you know other kids who have been trouble? What are the pros and cons for you? How much you think is too much? What do you know about health risks? If it did become a problem in the future, how would you know? Do you know why I or your parents might think it's a problem or whoever else might know? If you can stop anytime would

you be willing to see what it's like? And sometimes that means that you're going to not use for the next couple of days and you can talk again. It's really try- trying to create a linkage and a connection more than anything else.

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Families are really there to help model and support treatments. You want to do your best to accommodate individuals and really work hard to engage families. Often I think it's harder at times to work with the family than it is the individual, but it is a two-pronged approach.

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So, this is a quick poll question. You'll see a poll on the right and I encourage you to vote. And the question is, which is a risk factor of substance disorder in adolescents: A- mood disorder, B- engagement in extra curricular activities, C- early age of puberty or D- social status. Sothe question again, which is a social risk factor of substance use disorder in adolescents? Choices were A-mood disorder, B- engagement in extra-curricular activities, C- early age of puberty, or D- social status. And the answer is A- mood disorder.

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Here's a quick vignette just for you to think...a 17-year-old male began, prescription drugprescription opioids rather at 15. Progressed to daily use. Was having some withdrawals. Switched over to heroin. And initially nasal injection drug use. Has been in residential treatment. Leftcompleted once- presented crisis seeking detox. "Can I be out of here by Friday?" How should you care for him? This is just meant for a trigger for you to think about that.

This person should be someone that to be considered for medication for opiate use disorder. The push for that would be even stronger if we included in the history of that there had been a non-fatal opioid overdose. So adolescents and opioids medications are feasible and effective, and there's now emerging data- you'll see a reference below from this year. Again, buprenorphine is better than no buprenorphine. Unfortunately, the availability of programs offering medications are limited. We need to have more availability for adolescents. Naltrexone is- requires acceptance, it's often tough, even in adolescents, but certainly something that should be offered. Longer duration of whatever medication is always better. And I think adolescents would be a great candidate for extended release buprenorphine as it would simplify and and not depend on them having to take a medication daily.

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The shift to older adults. For older adults, it's even more of a hidden problem. There's really lack of screening in primary care, especially established patients- you have to go back and re-screen and ask. There's really lack of guidelines for assessing older adults. Signs and symptoms of harmful use

often overlap with other conditions, and it's often ageist bias. So young providers often will have difficulty questioning somebody who might remind them for instance, of their grandparents, or find it hard to believe that someone who looks like their grandparents has a substance use disorder.

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Some of the challenges are that we rely on an older patient's report of frequency and quantity of substance use. And maybe that's an underestimate. That there may not be appreciation of the negative consequences, long term damage of drinking and drug use, or perhaps the person didn't change the amount they drank. But now having harm from these, these amounts just because of other medical comorbidities.

This is from a paper a colleague and I published a few years ago; the important thing to realize is that you as you look at the list of symptoms and signs that none of them are necessarily say, this person has a substance disorder. It's just really when you put them together, that you might think about it. And it also means that when you see these kinds of complaints that it should be a trigger to have a discussion related to substance use.

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Here's a patient of mine, who I saw a few years ago for the first time. 72-year-old woman with a history of chronic pain. Previous provider will no longer prescribe oxycodone. That she was running out of a 30-day script in only two weeks. She was taking twice as much as she should. And she saw me, she was tearful. Her provider won't help her. She can't take anti-inflammatory drugs. And then in conversation she admitted that she often takes oxycodone when she's upset. So she's someone who I believe has a chronic pain syndrome but clearly also the criteria for an opioid use disorder. She lives alone, two daughters, both with difficulties, nonsmoker, no alcohol. The question was how should you care for her?

This is just meant to open up a conversation as we go on to further slides and this is someone that we then had a discussion of the use of buprenorphine for covering both opioid use disorder and pain.

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Some themes that older adults with an opioid or substance use disorder is: living alone, a sense of isolation sometimes despite family. That sense of isolation heightened in the setting of COVID. Opioid as a friend. Shame and fear how to live without the substance.

So here's- there's data to show that euphoria for opioids does diminish with age. That's probably some aging of the mu receptor. But older adults who were prescribed opioids versus NSAIDs had more comorbidities, so we clearly have to be careful.

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So the American Geriatric Society has various criteria for avoiding medications. And in older adults, this becomes tough, right? Avoid NSAIDs, avoid opioids if history of falls or fracture. Avoid tramadol. Avoid tricyclics So look, so there is a limitation on how we treat pain. I certainly use naloxitine a fair amount. And this is just an opening to think about, should we be thinking about buprenorphine in some of our patients.

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This is to switch substances. This is a 82 year old woman brought to the emergency department by a neighbor with syncope. Noted she had alcohol on her breath, and her BAL was 228. When confronted, she also became tearful. Her son goes to her home and finds hidden miniatures throughout her apartment. And this was someone who was isolated, just to think about, what she needed was really socialization. This isn't someone who, who the next step would be saying you need to go to rehab or you need to attend an AA meeting. It's really to understand strategies to help her.

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So there is a specific tool for looking at alcohol, screening for alcohol use disorder in older adults, sorry. And these are the questions and they're pretty obvious. I don't necessarily memorize these questions there. It's a validated tool. But I think it's useful to know, especially individuals who you're not sure. And you can see the questions here. And includes, unlike other screening tools in other populations, impact of your drinking on memory. Use to relax or calm your nerves. Increasing your drinking after experiencing a loss in your life. Have people other than family ever said they're worried or concerned about your drinking? And when you feel lonely does having a drink help? And it's only two answers that that trigger, really a further discussion related to alcohol use.

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So alcohol is the most commonly used substance in older adults. As we look at in older adults, there's a division into early onset, which is two thirds of older adults, meaning that they drank from earlier age, and in this population, just like other populations, men predominant over women. And then there's something that we call late onset, more likely to be triggered by a stressful life events, loss of spouse, retirements. And in this population, women predominantly over men. This may be artificial, as there likely are more, for instance, depending on what age group, for instance, to look at age groups, over 70 or 80, there are going to be more women than men, certainly more widows than widowers. So just be aware of this late onset being a gender equalizer.

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So I think most neonle are not aware of the drinking quidelines for older adults. And this is from

NIAAA. And I think the sentence here is really important, right? So adults over age 65, who are healthy, healthy and do not take medication should not have more than three drinks on a given day, which I think is a lot. But that's precisely the guideline. Or seven drinks in a week. There's no gender difference here. Unlike younger populations, where there's gender differences in the per week, or in the single question that we sometimes use to screen in younger populations- in which it's four for women and five for men. This is- there's no gender difference for the this question for individuals over the age of 65.

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I just want to highlight from the national survey, household study, that the most alarming things here I think, as you can see, the different data is I'm gonna highlight the last one. That binge drinking, which means five or more drinks, on the same occasion, or at least one day in the past 30 days, was present in 14% of 60 to 64 year olds, and 9% of those over the age of 65. So one out of 11 individuals over the age of 65 had had five or more drinks on occasion, on one day in the past 30 days. And certainly that presents as a potential for comorbidity especially related to falls.

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So this is a poll question again, I encourage- you should see the poll on the right. Which is a screening tool specifically to assess alcohol use disorder in older adults? A- CRAFFT, B- TWEAK, C- the CAGE-G or D- the MAST-G?

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Take a moment to vote now. The question again is, which is a screening tool specifically

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that assesses alcohol use disorder in older adults: A- CRAFFT, B- TWEAK, C- CAGE-G or D- MAST-G and the answer is the MAST-G which I previously presented to you. Early in the talk, we saw the CRAFFT for adolescents.

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So as alluded to, there's increased risk of alcohol even at low consumption. And a lot of this is related to older adults having decreasing muscle mass, less efficient liver enzymes to metabolize alcohol, and an increased effective concentration of alcohol and it lasts longer. In addition, we worry about alcohol medication interactions, and certainly comorbid chronic illnesses that also increase the impact of any known alcohol. So any sedating medication, you should be worrying about the impact of alcohol.

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Survey question which hopefully you'll get right based on my emphasis earlier. Again, a poll on the

right. NIAAA guidelines state that for someone over the age of 65, alcohol intake should be limited to: A- four drinks on a given day. B- seven drinks in a week. C- 14 drinks in a week for men or D- two drinks in a day. Go ahead and vote, poll on the right. NIAAA guidelines state that for someone over the age of 65, alcohol intake should be limited to: A- four drinks on a given day. B- seven drinks in a week. C- 14 drinks in a week for men or D- two drinks in a day. And here is the correct answer from the guideline. And remember it is seven drinks in a week. Although I could argue that perhaps I would think it would be D but the correct from the guideline is seven drinks in a week.

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So to switch substance quickly again, CR is this 82 year old man with hypertension and gastroesophageal reflux, recurrent depression. He's on antidepressants. Depression improved but continues experience anxiety and stress. Reports he's decided to go to a marijuana or cannabis dispensary and try cannabis to see if it can help his mood and his anxiety. How do you respond?

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So that has become an increasingly common dilemma. I recently saw a woman with a similar situation. Her grandson encouraged her to use cannabis. I think we have to be careful in older adults. So this is a recent published paper from this year, cannabis use in emergency visits among older adults in California. You can see that cannabis-related ED visits for individuals over the age of 65 increased by over 1800 percent, in the last- again in the past 15 to 20 years. So this was 2005 to 19. I think that numbers are even higher now. And so I think we have to be careful in older adults who differentiate from people in middle age in terms of impact of cannabis.

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I, again, we don't like to work on anecdotes, but certainly there's concern over increased psychiatric symptoms rather than improvements. But remember, older adults often see marijuana as a safer alternative to alcohol, opiates or pharmaceutical medications. But there is emerging data to look at its impact on negative impairment, negatively causing impairment in short term memory, increased risk of falls, decreased coordination, increased anxiety, and for sure I think that a dose-response effect- paranoia and psychosis- are I think really important.

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Last substance, which I think is tough, and I'm just going to touch on it briefly which is benzodiazepine prescribing in older adults. When in fact, in general, I'll show you on a slide we're talking about de-prescribing. Because unfortunately, we we take care of older adults who have been on benzodiazepines for many years without necessarily good indication for the new need, often with adverse effects appearing as they become older with interactions with other medications as well.

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So this is just an example of a woman with long history with episodic anxiety. She's been on

temazepam for 30 years. She has crying spells, anxiety, poor appetite, she has trouble concentrating, but not only in she on temazepam she's on trazodone. At that time she's on one of the Z sleep medicines. In addition, she's on tramadol prn pain, and she's on gabapentin. So she's on a whole bunch of sedating medications, that clearly as you add them up probably, or the sum is worse than the total.

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So in general the rules of deprescribing, it's emphasizing that you're not withdrawing appropriate care, we're going to treat your symptoms we need to do so without causing you- you other problems. And it's really assurance. We're gonna reduce the medicine very slowly and stay in close contact to watch for turning symptoms.

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These are just some of the considerations- to use schedule rather than prn when you reduce because prn is not going to work as you try to de-prescribe. Sometimes, multiple times a day, short-acting benzodiazepine, you might consider using a long-acting. Schedule follow-ups. Be available by phone, the general rule is for early on, you can reduce the daily dose by 10 to 25%. And then usually go more slowly. For safety reasons sometimes I go more quickly. Oftentimes, I've seen individuals with falls on very saf- unsafe amounts of benzodiazepines who were decreased by up to 50% by two weeks to just try to try to get them to a safe level to start.

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I'm sorry, and this is just to be aware that ageism impacts. And this is an example of a 70 year old male, who I met on initial visits, type two diabetes and hypertension, who, I typically ask individuals, what do they do to unwind or have fun, and he shared with me without hesitation, that on Friday night he likes to play pinochle and smoke some crack cocaine. He did not see anything negative about it. And in this instance, our conversation was purely that with your other health problems, this isn't a good choice for you. And he actually, he's still my patient. He's never used cocaine again since then.

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So some are just- concern and friendly advice. Education is important. I allude to the fact that the reaction might be different if instead, he said he drank few beers to unwind, but just realized, I believe this, he viewed it in the same way.

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Again, just to summarize, the treatment approach for older adults is don't minimize- really similar to any population- to confront with compassion, build self-esteem, give them hope things can get better. Isolation is really a crucial thing to undo. Coping skills are essential. And again, finding new ways to stay busy with use of peers.



So treatment for youth and elderly is effective, but we need to learn to improve it. There isn't enough of it. Access and engagement is a problem. But we need to engage our patients and give the message that treatment works. And your references. Most of these were on the bottom of slides, but here they are put together in one list. Thank you