

Juvenile Patient with ADHD Avatar Script

Individuals who have Attention Deficit Hyperactivity Disorder (ADHD) are diagnosed based on symptoms that include inattention, hyperactivity-impulsivity, or both. For children and adolescents, these symptoms must cause significant difficulties or impairments in two or more settings, like the home or school environment, they must have been observed as occurring for at least 6 months or longer, and must have started before the age of seven. Recent research suggests that youth diagnosed with ADHD are two to three times more likely to use tobacco as compared to their peers who do not have ADHD. The reasons for this relationship are not fully clear, but there is some evidence to suggest that tobacco use in this population may be multifactorial, including genetic, bio-behavioral, and social factors.

For example, studies have found shared genetic pathways that likely increase vulnerability to initiation and maintenance of tobacco use among those with ADHD.

References

Van Amsterdam, J., van der Velde, B., Schulte, M., & van den Brink, W. (2018). Causal factors of increased smoking in ADHD: a systematic review. *Substance use & misuse, 53*(3), 432-445.

Goldenson, N. I., Khoddam, R., Stone, M. D., & Leventhal, A. M. (2018). Associations of ADHD symptoms with smoking and alternative tobacco product use initiation during adolescence. *Journal of pediatric psychology, 43*(6), 613-624.

Dvorsky, M. R., & Langberg, J. M. (2019). Cigarette and e-cigarette use and social perceptions over the transition to college: The role of ADHD symptoms. *Psychology of Addictive Behaviors.*

In addition, nicotine, a stimulant seems to be able to improve attention while reducing impulsivity and hyperactivity among people with ADHD. Moreover, youth with ADHD, their impulsivity may make them more prone to trying and initiating tobacco products at an early age. Of particular interest, among high school students there may be a greater risk of electronic

cigarette use among those who have ADHD. Thus it is particularly important to screen for tobacco products in this age group.

For more information on evidence-based tobacco treatment approaches for individuals with depressive disorders and other mental illnesses, please see the link available below:

www.samhas.gov

Current issues: 15-year-old Hispanic male, currently having a checkup at the adolescent behavioral health clinic. He is visiting his mental health care provider to assess treatment progress after starting new Attention Deficit Hyperactivity Disorder (ADHD) medications. New medications are overall effective and the patient is responding well to treatment

Psychiatric history: He started having noticeable poor attention and hyperactivity symptoms from the age of 6. He regularly sees a psychiatric nurse practitioner at the local adolescent behavioral health clinic. Other than ADHD, he is healthy.

Social: He lives at home with his mother, father, and three siblings. He is very active in sports, school activities, and church functions. He likes playing video games with his friends and just hanging out on weekends. He is a B+ student.

Medical history: Not remarkable. Had his tonsils removed at age 6. He began vaping approximately 5 months ago after being offered to ‘vape’ by friends. He uses vapes daily, usually after school and especially on the weekends when hanging out with his friends. His parents are unaware of his use of vapes.

Narrator: As a review, the steps in the 5 A’s are:

- ASK about tobacco use
- ADVISE to stop use
- ASSESS readiness to stop use
- ASSIST to stop use
- ARRANGE for follow-up and support

Scenario

Psychiatric Nurse Practitioner: Now that we've gotten your ADHD medications squared away. I'd like to ask you a few routine questions about substance use, ok?

Patient:: You mean like drugs and alcohol and stuff? I don't do any drugs and I don't drink at all. My dad'll kill me if I did any of that.

Psychiatric Nurse Practitioner: Well, that's good that you don't do any drugs and you don't drink. What about tobacco use? Do you use any tobacco products?

[ASK]

Patient: No, I don't do any of that either, it's nasty. My uncle Ricardo used to smoke and he got emphysema or something, real bad. I don't want any of that.

Psychiatric Nurse Practitioner: That's great that you don't smoke cigarettes. But just to make sure I cover the basics, do you use any chewing tobacco, pipes, cigars, or vapes?

Patient: Oh, yeah, I vape, but I don't do any of that other stuff. Vaping isn't really like smoking you know...

Psychiatric Nurse Practitioner: Well, what have you heard about vaping, like what type of vape products do you use?

Patient: Oh... I vape...everyone's doing it at school... It's really safe because you aren't taking in any smoke in your lungs or nothing. My friend, Tino, his dad's like a pharmacist... and he told us that vapes are not so bad. He says that smokers should all switch to vapes to help protect their lungs.

Psychiatric Nurse Practitioner: Well...what do you like about vaping?

Patient: (After 2 seconds)...I guess I like the flavor. I like the mint flavor...(after 2 seconds)...it helps to chill me out sometimes. Like sometimes when I'm just feeling kind of ancy...you know... especially after coming back from school and the ADHD medicine is wearing off...y'know...vaping kind of helps me to focus and, I don't know, it just feels good...

Psychiatric Nurse Practitioner: So, it sounds like you like the flavor...and vaping sometimes helps you to calm down a bit and even to focus....especially after coming back from school?

Patient: Yeah...

Psychiatric Nurse Practitioner: Are there some things that you've found that you don't like about vaping?

Patient: Well...to be honest...my parents don't know that I vape...I don't think they'd like it if they found out.

Psychiatric Nurse Practitioner: Hmm...anything else?

Patient: Well, it is a bit expensive, I mean, it's not that cheap even though I usually get a good deal.

Psychiatric Nurse Practitioner: Have you noticed if it's affected your breathing or your lungs?

Patient: No...I don't think so...can it?

Psychiatric Nurse Practitioner: Depending on how often people use it...with some of the flavors...and the different types of e-juices...there've been some recent reports that it can affect your lung health

Patient: Really...I haven't heard about that.

Psychiatric Nurse Practitioner: Well, really recently, several people have been hospitalized and even died from e-cigarette use.

Patient: No way....

Psychiatric Nurse Practitioner: These deaths seem to be linked to the use of e-cigarettes and marijuana oil together, especially with e-liquids that have vitamin E added to them. Do you or your friends add any marijuana oil to your e-juice?

Patient: No way...that would be like doing drugs!

Psychiatric Nurse Practitioner: Well good! I'm glad to hear that you don't...and I strongly encourage you not to do so because these deaths related to mixing e-juice with marijuana oil are serious.

Patient: No sir, I'd never do that. My parents would kill me if I did!

Psychiatric Nurse Practitioner: Is it ok if I share some information about how vaping or smoking can affect your health?

Patient: Ok...

Psychiatric Nurse Practitioner: Using any form of tobacco product is not without harm. Especially when you are smoking or vaping. Anytime you inhale anything other than clean air, you increase the risk of damaging your lungs. For example, cigarettes have over 600 ingredients that when combined produce over 7,000 chemicals of which several are known to cause cancer and damage the lungs. So, I'm glad you aren't using those. However, although vapes may not have quite as many chemicals, recent research shows that they are actually 'aerosols'. This

means that e-cigarettes and vape ‘vapors’ actually contain many fine particles and liquids, some of which are irritants to the lung at very fine levels.

Patient: Really...what kind of particles are these?

Psychiatric Nurse Practitioner: Well, as an example, some researchers have found formaldehyde in e-cigarette vapors...formaldehyde is used as a preservative. Although it is usually not too problematic when eaten, breathing it in has been linked to cancer. In addition, vapes and other e-cigarettes contain some trace elements and metals, which should not be in the lungs. Because many vapers use it for long durations of time, we certainly know there is an increased risk of harm to the lungs when inhaling formaldehyde and other chemicals regularly.

Patient: That’s awful!

Psychiatric Nurse Practitioner: Yes, it is!

[ADVISE]

Psychiatric Nurse Practitioner: So, having such knowledge, I am concerned about your long-term health when you use vapes, and as your health care provider I would strongly encourage you to stop using them. What do you think about that?

Patient: Yeah...I probably should stop vaping. But I don’t feel sick or anything, and it kind of helps me focus a bit...y’know...

Psychiatric Nurse Practitioner: I can imagine that thinking about stopping vaping could be a bit challenging, but I’m here to help you if you’re ready. Ok?

Patient: Ok...I’ll think about it

[ASSESS]

Psychiatric Nurse Practitioner: Ok...why don’t we fill out a questionnaire together to get a sense of where you are in terms of your vaping. This questionnaire is called the Hooked on Nicotine Checklist. It can give us a pretty good idea of how hooked you may be on vaping to help us come up with a strategy for you to stop using it when you are ready. How does that sound?

Patient: Yeah...sure...I’m kinda curious to see where I am...

Psychiatric Nurse Practitioner: This is a questionnaire with 10 questions with either a ‘yes’ or ‘no’ response. No question is right or wrong, so just answer the questions based on your current feelings and experience with vape.

Patient: Ok.

Psychiatric Nurse Practitioner: Have you ever tried to quit vaping but couldn't?

Patient: Nope

Psychiatric Nurse Practitioner: Do you vape now because it is really hard to quit?

Patient: No, not really

Psychiatric Nurse Practitioner: Have you ever felt like you were addicted to vapes?

Patient: Hmm...I guess...yeah...I mean...I've thought...maybe? I mean...like...I've never thought like 'addicted'...but I've thought...maybe I do it a bit...like...a lot? I don't know...

Psychiatric Nurse Practitioner: What do you think, should I mark a 'yes' or a 'no'?

Patient: Well... let's like....let's say like a 'yes' for now...

Psychiatric Nurse Practitioner: Ok...Do you ever have strong cravings to vape?

Patient: Oh... yeah...it's funny you say that...like yesterday, when my dad yelled at me because I didn't do so well on a test...you know...all I wanted to do was to go vape a bit...just to calm down you know....so yeah...I felt a craving to vape...

Psychiatric Nurse Practitioner: Have you ever felt like you really needed to vape?

Patient: Yup...like I said, when my dad yells at me or when I really start getting ancy with my ADHD, you know vaping can help

Psychiatric Nurse Practitioner: Is it hard to keep from vaping in places where you are not supposed to?

Patient: Well, you know...me and my friends...we sometimes vape a bit in the bathroom at school. I know we aren't supposed to at school, but sometimes we do anyways...so yeah...Oh my gosh...are we like addicted or something?

Psychiatric Nurse Practitioner: Well let's finish up the questions and see....When you haven't used vapes in a while, did you find it hard to concentrate because you couldn't vape?

Patient: That's tricky...vaping really helps me concentrate, so I don't think it's because I haven't used it for a while...I think it's usually...like...when the ADHD medicine is wearing off or something...y'know.

Psychiatric Nurse Practitioner: Well when you haven't used vapes in a while, did you feel more irritable because you couldn't?

Patient: I guess so...I use vapes like every day, y'know...and when I miss a day...I just feel more ancy and a bit snappier...so.. yeah...I guess...yeah?

Psychiatric Nurse Practitioner: When you haven't used vapes for a while, do you feel a strong need or urge to vape?

Patient: That is a definite 'yes'...even just thinking about it now makes me want to vape a bit...

Psychiatric Nurse Practitioner: Well, if you haven't used vapes for a while, have you ever felt nervous, restless, or anxious because you couldn't?

Patient: Usually I feel ancy and restless because of my ADHD, so I figured that vapes helps with that...I don't know if I feel that way because I haven't used vapes in a while...could I?

Psychiatric Nurse Practitioner: Perhaps... and even if we respond 'no' to this last question, overall, you scored a 6 out of 10 which suggests that you may be 'hooked on vapes' or addicted to vapes. What do you think about that?

Patient: Man...I never thought like I'd get hooked on vapes...I just thought that it was helping me feel more focused and less restless...y'know...it kinda sucks to think that I'm...like...addicted or something...

Psychiatric Nurse Practitioner: Based on your answers to the questionnaire, it appears that you are using vapes in a way that is consistent with being addicted. One of the challenges with vapes is that it contains nicotine, the addictive component of any tobacco product. Usually, people may start vaping because it is pleasurable, or in your case, it was possibly helping you with some of the symptoms of your ADHD. But because vapes are addictive, the original intention of using them will almost always turn into an addiction to the product. This is fully the intention of those who manufacture vapes.

Patient: That's completely crazy...no one told me that before...is the addiction dangerous? I mean, it's not like I'm using drugs...right?

Psychiatric Nurse Practitioner: Another of the problems with products like vapes is that because they are legal, people don't think of them as 'harmful'. However, for younger people, like you, addictive substances like nicotine can change your brain to make you more vulnerable to other addictive substances in the future. One of the concerns that many healthcare providers like me have with vapes and other e-cigarette-like products is that they can become a gateway for young people to use other drugs and even cigarettes, because of how addictive they are.

Patient: Whoa...that's really messed up!

Psychiatric Nurse Practitioner: Sure is...but, after hearing all of that, on a scale of Zero being 'not at all important and Ten being 'very important, how important would quitting vapes be to you right now.

Patient: Totally like a ten

Psychiatric Nurse Practitioner: Why a ten and not an eight or nine?

Patient: Man...I hate the idea of being addicted...I don't want to have like a crutch on anything.

Staff RN: Then, on the same scale of Zero to Ten, how ready are you to make a change right now in your vaping? With Zero being not at all ready and Ten being extremely ready.

Patient: I'm ready to make a change like now...but I'm not sure exactly what to do

Psychiatric Nurse Practitioner: Are you ready to make a change like a Nine or Ten or like a Five or Six?

Patient: I'm definitely ready...like a Seven or Eight...

Psychiatric Nurse Practitioner: Why a Seven or Eight and not a Five or Six?

Patient: Well I'd totally like to stop because I hate the idea of being addicted and putting bad stuff in my lungs...but... when I think about it...it's one of the things I like to do with my friends on the weekends and I know I'd want to do it when I got home after school...I'd kind of miss doing it....

Psychiatric Nurse Practitioner: Ok, so it sounds like you really don't like the addiction or the possibility of hurting your lungs, but vaping is something that you do with friends and look forward to doing after school.

Patient: Yeah...

Psychiatric Nurse Practitioner: What can we do to move your readiness up to a Nine or Ten?

Patient: I don't know...maybe if I could get my friends to stop vaping or find some other way to stop using it after coming back from school?

Psychiatric Nurse Practitioner: Then on the same scale of Zero to Ten, how confident are you that you can stop using vapes?

Patient: I'm quite confident...I'd say a Ten

Psychiatric Nurse Practitioner: Why a Ten?

Patient: I really really hate the idea of being addicted to anything...I gotta stop so that I don't get an addicted brain...It's bad enough that I am taking ADHD medicine which is like an amphetamine or something like that...

Psychiatric Nurse Practitioner: It seems like you recognize the addiction potential of drugs and you don't want to be using anything that can lead to addiction in the future?

Patient: Right!

[ASSIST]

Psychiatric Nurse Practitioner: How would you plan on stopping using vapes?

Patient: I don't know...maybe I could cut down? I'd like to just stop altogether but if I'm addicted wouldn't that be hard or dangerous?

Psychiatric Nurse Practitioner: It is true that stopping certain drug use, such as alcohol use, can be dangerous and will require medical monitoring in some instances, but it is not the case for vaping. However, the challenge in abruptly stopping nicotine-containing products is nicotine withdrawal. This comes with feelings of depressed mood, poor concentration, irritability, sometimes changes in your appetite, nervousness, and cravings for vapes. Maybe we can make a plan of how you can cut down to eventually stop using?

Patient: I know when my uncle got the emphysema, he used the nicotine patches to quit smoking...is this something I could use?

Psychiatric Nurse Practitioner: Currently, there are no real guidelines for using any of the nicotine replacement products or medications for smoking cessation to help people using vapes or e-cigarettes stop. However, I have heard of people quitting e-cigarettes using the nicotine patch.

Patient: Could I try it?

Psychiatric Nurse Practitioner: Because the nicotine patch is a medication, I would need to obtain your parent's consent before trying it on you. Moreover, most studies that show that the patch works have been tried on adults. Do you think we could try some alternatives first?

Patient: Sure...what kind of options do we have?

Psychiatric Nurse Practitioner: First, it would be good to let your friends know what you know about the possible harms of vapes, especially addiction, and that you want to stop using them. What do you think about that?

Patient: I'm sure a few of them are also addicted just like me...I think some of them would want to stop as well. So, I will let them know....

Psychiatric Nurse Practitioner: Good. Also, I would like you to keep a vaping calendar for the next week or so to figure out when you vape, for how long, and how you are feeling when you want to vape. How does that sound?

Patient: That should be easy

Psychiatric Nurse Practitioner: This will help us figure out your patterns of vaping and maybe why you use it. For example, if the ADHD medicine isn't quite covering your entire day, we may need to add some short-acting ADHD medicine or something so that you can focus in the evenings after school instead of vaping.

Patient: Yeah...I never thought of that...maybe that could work...and help me with concentration and be less fidgety instead of vaping...

Psychiatric Nurse Practitioner: It might be worth a try...but we'll be able to tell from your vaping calendar what your patterns might be.

Patient: Ok...

Psychiatric Nurse Practitioner: Finally, maybe on the weekend, try to take a vaping holiday...I mean, try not to vape for one day and see how you feel...I want you to especially note if you are experiencing any withdrawal symptoms like greater depressed mood, crankiness, or poor concentration. Could you do that?

Patient: Sure...I'll try that this coming weekend...I'll try not to vape on Saturday and see how it goes...

Psychiatric Nurse Practitioner: Sounds like a plan!

[ARRANGE]

Psychiatric Nurse Practitioner: Also, before we finish up our session, I'd like to make you aware that there are several quitting apps like 'MyQuit coach', 'Cessation Nation', and 'QuitNow!'...although they were designed for smokers, perhaps you can look through them and see if any of them can help you with making a quitting plan. What do you think about that?

Patient: That's cool...I'd like to try it out...is there any for vaping?

Psychiatric Nurse Practitioner: I haven't found any for those who want to quit vaping yet...but I'll keep looking. Also, if you find any please let me know!

Patient: I sure will....

Psychiatric Nurse Practitioner: Are there any other questions that you have or is there anything else you would like to tell me about your vaping before we call it a day?

Patient: No...but thanks so much for telling me about vapes and how addictive they can be.

Staff RN: You are most welcome! Let's make sure we make an appointment to meet in two weeks. In the meantime, create your vaping calendar, try a vaping holiday, and look through some of the apps I recommended.

Patient: I will! Thank you!