Quick Takes
A PODCAST BY PHYSICIANS FOR PHYSICIANS
HOSTED BY DR. DAVID GRATZER

May 18, 2022

Cannabis: Exploring the evidence & clinical implications with Dr. Kevin Hill

[Edited for grammar and clarity by CAMH]

[Musical intro]

David Gratzer: Cannabis remains understudied under regulated and surrounded by controversy. So note the authors of a recent *American Journal of Psychiatry* paper on cannabis. But if the literature is mixed, the enthusiasm amongst some patients is not. Cannabis is touted for its qualities for sleep, patients with mood and anxiety seem to get benefits, or so they tell us. Making matters even more complicated as an industry that supports the use of cannabis. Who should be using cannabis? How should we talk to our patients about it? Today on *Quick Takes*, I'm joined by Dr. Kevin Hill. Dr. Hill is an addiction psychiatrist at Beth Israel Deaconess Medical Centre. He's also director there of the Division of Addiction Psychiatry. And he's an associate professor of psychiatry. Dr. Hill, welcome to Quick Takes.

Kevin Hill: Thanks for having me, David.

David Gratzer: Thanks for joining us. We're here to talk about cannabis. And before I get into our interview, let me just say that that review that you had co-written first author of for the *American Journal* was unusually lucid and helpful.

Kevin Hill: Well, thanks. I appreciate it. I enjoyed that opportunity to work with a lot of superstars in the field that know a lot more about this particular area of cannabis than I do. So, I think we were able to put together a product that we think would be helpful for a lot of clinicians. Really, what we're trying to do, as you alluded to at the top, was just trying to bring people into the middle of this because as you again alluded to, that there are very strong proponents for cannabis and there are people who feel that, you know, they're entirely sceptical about it. And the answers to a lot of these questions are somewhere in the middle, and that's really what we're hoping to provide in that review.

David Gratzer: You've been studying cannabis for some time, and you're a very prolific author. How has your thinking changed over time?

Kevin Hill: It has changed a lot. As a matter of fact, I initially got into this area looking at pharmacotherapy for cannabis use disorder. And so being an addiction psychiatrist, I'm treating a lot of patients with alcohol use disorder, opioid use disorder. And I initially became interested in cannabis because when I was doing intakes for those patients in a partial programme at that time, I found that over half of those patients who had AUD [alcohol use disorder] or OUD [opioid use disorder] said that they smoked weed daily for years, usually in their late teens or early 20s. And so, you know, the wheels started turning. What if we were able to do a couple of things at that point? Number one, identify a treatment that works for cannabis use disorder? Then number two, importantly kind of related to this podcast, let people know about it. What if we were able to do those two things? I still believe that if we are able to accomplish those two goals, we would dramatically undercut the number of patients who are coming into programmes like ours for AUD or OUD. However, I think that

cannabis has been a hot button policy topic for a number of years in many places, including Canada, but also in my Commonwealth of Massachusetts. And that's really how my thinking has changed somewhat. In 2012 we voted on medical cannabis in Massachusetts and people kept asking me, what about this? What about this? And my patients had said for years, especially those that had pain problems, well, if I smoke cannabis, then I don't need as many pain medications. And so I was initially sceptical, certainly. But the more I looked into it, the more I realised that there were trials. There are people like Mark Wallace in California doing trials and Mark Ware in Canada, so people doing really good research on cannabis and cannabinoids. And I started to realise that there was some evidence. And so I became more interested in the therapeutic use of cannabinoids and have been kind of looking at that topic for a number of years now. And I think we're at this really interesting point that we sort of cover a bit in the review paper in *American Journal of Psychiatry*, where there is some evidence – it's not very strong evidence, it's not as strong as we would like it to be, and we can perhaps talk in a minute or two why it should be stronger, but there is some evidence. It's not zero. And so I think part of what chagrined me is that there really are still these very finely demarcated camps. There are people who believe that it's worthless, that patients should have nothing to do with it, nor should they want to even talk about it. And then, of course, they're the folks who are true believers who feel like it's a panacea of some sorts. And so we really haven't moved as far as I think we should. I think most psychiatrists, most physicians, I think, should be aware that there is some evidence.

David Gratzer: So let's set aside the debate. So some people are passionate on one side or the other. Let's look at the evidence, and let's start here. Is there evidence for the medicinal benefits of cannabis?

Kevin Hill: There is some evidence, yes. So we have three cannabinoids approved in the United States, and they're approved for a few conditions. Nausea and vomiting associated with cancer, chemotherapy appetite, stimulation in certain wasting conditions. And then now we have cannabidiol for three seizure disorders more or less: Lennox-Gastaut, Dravet syndrome, and then seizures associated with tuberous sclerosis. So for those things, cannabis, cannabinoids, the particular cannabinoids are efficacious clearly. And then what I've written and what the 2017 *NASEM* report alluded to, and some other folks, the Whiting meta-analysis in 2015 in *JAMA*, allude to other efficacy in pain disorders. And again, the evidence varies widely there, but there is some evidence. And then also spasticity associated with multiple sclerosis. So those are areas where you have multiple positive RCTs. Even beyond that, though, we are starting to see little, you know, droplets of data for cannabidiol, for example, as perhaps an adjunct pharmacotherapy for schizophrenia. So there is some evidence there, but it's not nearly as much as a lot of people would like it to be.

David Gratzer: Patients swear by it. I mean, I was just working in the emergency department. A patient came in, talked about how much better he sleeps with cannabis. It's the only thing that seems to help. You're unpersuaded.

Kevin Hill: I'm not. So there really isn't evidence to support the use of THC or CBD for insomnia. So, my take on the literature is that THC functions like alcohol in terms of sleep, so it will decrease the amount of time you spend in REM sleep. So I'm talking about that with my patients. I mean, it will help you get to sleep, and perhaps this is all dose related, maybe very small doses of THC, perhaps. But my understanding is that it's not going to be a good thing. When you talk to experts in CBD, there's not good evidence supporting its use for sleep despite popular belief. And then somebody countered, well, it's CBN, cannabinol, that's the one, you know, so it's like it's a moving target. I think people want to believe that cannabinoids are going to be helpful, but the evidence really has not been there yet.

David Gratzer: Ok, so insomnia, secondary to mental health problems, scant evidence, but mental health problems like depression anxiety are also suggesting the evidence just isn't there so far.

Kevin Hill: Definitely not. So as I said a minute ago, I think that if you're talking with your patient and you have an ongoing relationship with them, you're treating their anxiety and they have made a legitimate collaborative effort with you. You've tried multiple medications, hopefully behavioural intervention, then I think, you know, I

would consider cannabidiol, given the limited evidence that is there, as long as it's supervised and we can monitor them, drug-drug interactions, we can check their liver function tests. You know, I would consider it, but there's not strong evidence at this point. And I think we're opening the door to the frustration, right? We've got millions of people using these cannabinoids and the science is not moving at the same pace, and that's very frustrating, I think, for a lot of people.

David Gratzer: And one final thing you commented on a moment ago is that CBD might actually not be better than THC. But so many people suggest that it's non-addictive. It's safe if we believe in harm reduction, that this would be the way to go for our patients.

Kevin Hill: So that's a great point to make. So it's not addictive - clearly. So that is true. On the whole, I think CBD is less harmful than THC. However, you know, we've been beating this drum, quite trying to be loudly for the last year or so. There are risks here, and it's not just me saying this, right? So we published a paper early 2021 talking about drug-drug interactions in *Annals of Internal Medicine*. You know, there is a pretty important paper. I feel that came out, I think it was end of 2020 by Watkins et al., where they looked at one of the Epidiolex open label studies. They had 16 patients in it and five of the 16 patients had LFTs more than five times the upper limit of normal. So these things are real. And my concern, having talked to so many patients who have been interested, I mean, it seems pretty clear to me that there are a lot of people out there using CBD with no supervision at all. And I think one of the sort of, you know, pros and cons that is that they're usually under dosing it so significantly that we probably don't have to worry about a lot of these side effects. But at the end of the day, you know, I strongly encourage patients who are interested in using CBD to do it under the supervision of a physician so that we can just make sure that things are OK, that there aren't drug-drug interactions, that your LFTs are OK and that you're clinically progressing. You know that they're using it at the appropriate dose. You know, one of the things that we talked about in the AJP paper was that CBD has so many mechanisms of action, it operates at so many different receptors, and the doses required to impact those receptors differs widely. So depending on what you're trying to accomplish with it, the dose is going to change quite a bit. But I think for the most part, the doses of CBD that people are going to need for the disorders that they are trying to receive a relief from are much higher than what most people are taking.

David Gratzer: Thinking about an emerging literature and the grey literature stuff that that's coming down the pipe, so to speak. Besides, perhaps, a third line agent for anxiety, do you see much of a role for these medications?

Kevin Hill: Well, I think we will uncover other roles, and so one of the things that I've pushed for in recent years, including in my work with the National Football League, is that, you know, we've got to find out what these cannabinoids are good for. And that means doing rigorous trials, picking the right population, the best outcome measures and then finding out. And I think, to me, that's one of the great things about the FDA approval for CBD, for example, it shows that you can do this the right way. I mean, these are papers, you know, so the company that got the FDA approval in the United States, they did rigorous trials, they used great investigators, they use good outcome measures. These results were published in the Lancet, New England Journal, so you can do this the right way if you really want to. And we have not yet. We've chosen not to. And I think part of that is because in Canada and the United States, there are a lot of people who are already profiting significantly from these products and they feel like, "Well, why should I invest millions of dollars for something that may not even help my bottom line?" So we haven't unfortunately advanced the science, and I think that's one of the things that we have tried to do in the National Football League. We just funded a couple of studies, pilot studies, but we funded a couple of studies looking at cannabinoids as treatments for pain. And one of the groups is actually at the University of Regina in Canada. So I think that there's a tremendous need for, I mean, everybody that's kind of the cliché thing, but here is a great example. We've got millions of people using these cannabinoids and yet in the last few years, the science has just not kept pace with that level of interest.

David Gratzer: Let's pivot for a moment. Many of our patients are using. Some of them are clearly getting into the substance use problems that one would expect. Would you recommend a screening tool or two?

Kevin Hill: Oh, it depends on the practise. I mean, so there's a relative of the AUDIT called the CUDIT. I mean, if you're in a practise that has a lot of patients and you feel like by the time the patients get to the clinician, they don't have the time to really take a great history, then maybe I think a screening tool. You have to assume these days that, you know, with 40 million Americans, and obviously it's legal in Canada, that many, many people are using cannabinoids. So you really need to find out what they're doing. And beyond that, the specifics of it: how often, what product, what are they hoping to accomplish with it? But yeah, there are. There are always screening tools that may be a portal into prompting further conversation and the CUDIT it is one of them.

David Gratzer: Patients suggest that he'd like to cut back, but the cravings are too strong. What might you suggest?

Kevin Hill: Yes, so that's a great question. It's one that I wish we had better answers to. At this point, in my mind, we look at the patient, we say, what's going on in total? Are there co-occurring psychiatric disorders? If so, got to treat those. Is somebody going to benefit from either general psychotherapy or maybe cognitive behavioural therapy aimed at their cannabis use? If so, got to do that. But if we're doing all those other things, also perhaps some mutual help groups. If we're covering all those bases, then we're getting into a conversation, perhaps where we talk about using maybe N-acetyl cysteine. If they are already on gabapentin, then I'll use gabapentin and make sure they're on the right dose. Cannabidiol is something that we talk about, but like we talked about before, it's got risks. It's expensive as well. You know, if you're in a place where Nabiximol is available, then I think that's a very legitimate, you know, option

I think we should also mention anytime we talk about cannabis use disorder that it's a hard diagnosis to make. People are not going to call you or me and say, I think I have a cannabis problem. It's never something where people are self-presenting for. You're almost always pushed in by a spouse or the school or your employer. So when you think about the general talk about cannabis, again it's the greatest thing ever, it's harmless, you know, those kinds of narratives make it very difficult for a person who may be wondering, You know what? Maybe I'm smoking too much. Maybe this is holding me back. Maybe this is part of the reason why I'm in my late 20s and I'm not making it like I think I should be making it. So there are many reasons why people who have problems with cannabis find it difficult to get the help they need.

David Gratzer: When you meet with the patient who's ambivalent, like so many of us, and I think we're all struggling with this. Do you have any tips? I mean, you've suggested talking about risks and benefits and potential harms.Are there certain catch phrases or things that you might bring up with a patient?

Kevin Hill: The nature of what I do all day long is trying to get people to do things they don't want to do. And you say ambivalent. Everyone here is ambivalent to some degree. So to me, when they come in, especially with cannabis, right, because people are so used to being judged, they expect physicians and other health care professionals to frankly, most of the time, to be opposed to cannabis. So if you're able to have a sensible conversation with them, that's what I'm trying to accomplish. So I'm listening to them, trying to understand what is at least the perceived benefit for their cannabis use and then have the conversation talk about risks and benefits, understanding that they're not interested in the latest research. You know, some of the papers that we talked about today, what they're more interested in is what I have to figure out, right? That's kind of my way of thinking about motivational interviewing. What are the one or two things that they really think is a problem that might be affected by their cannabis use? For example, if it's a young person, you know they really want to go to McGill in your case or, you know, they really want to use the car, or if it's somebody a bit older, you know, they're really concerned about maybe their depression. That's the real problem. Like, I am depressed. The cannabis is not a problem for me, but I wish my mood were better.

So if I can figure out those things, a couple of hooks to use, and all the while I've been reasonable in my conversation and I've listened to them, then I think I have a chance. Usually not right away. Usually people takes a little while for things to set in. You know, I'm going to be clear about what I think they should do. But what usually happens is a week later, a month later, six months later, hopefully before they've lost those important things, then they'll say, you know what, I'm willing to give this a try. Let's talk more about this. So that's kind of how I approach it. There really aren't catch phrases for me. I just want to learn the story and try to make some kind of connexion with them. And that really does work. So even with people who have smoked cannabis daily for years and a lot of weed, those people can really turn around too. If they're just given the right tools, you know they have to be ready. But if you kind of meet that, you know their readiness with the right tools, then people can do very well.

David Gratzer: And I think on that hopeful message, we can pivot one last time.

David Gratzer: It is a *Quick Takes* tradition that we close with a rapid-fire minute with several questions.

Kevin Hill: Ok!

David Gratzer: Are you up to the challenge doctor? You like refractory problems? I can tell. All right. Let's put a minute on the clock and let's get going here.

[Clock sound effect]

Dr. Hill, what is one thing clinicians should know about cannabis?

Kevin Hill: I think that there are some therapeutic benefits to cannabinoids.

David Gratzer: What is the biggest surprise in your research?

Kevin Hill: I think that we haven't made more progress than we have to this point, given the amount of interested stakeholders.

David Gratzer: You mention a partnership with the NFL. Are you a football fan and what's your favourite team?

Kevin Hill: Oh, definitely, definitely a big, big football fan. I've been a Chicago Bears fan for many, many years now, so I'm a long-suffering fan.

David Gratzer: Yeah, it's been about 30 years since the last Championship, but coming up on 40 years, as it would turn out. I'm sorry to hear of your troubles, sir. What keeps you up at night?

Kevin Hill: Many things I think the biggest one is just knowing that, you know, we've got so many patients that are always kind of on the brink, and I think COVID has made everything harder. I think that, you know what I think about what COVID has done is sort of shifted the curve to the right in terms of severity of illness. So I do worry a lot about my patients. And you know, there are almost always patients in crisis and it's really hard to let that go.

David Gratzer: At the buzzer. Do you support cannabis legalisation?

Kevin Hill: I do for adults, so I personally believe that adults should be able to do what they want to do as long as it doesn't hurt other people.

[Buzzer/alarm]

David Gratzer: Dr. Hill, I really appreciate your time. You've written prolifically, the *American Journal* paper in which you are the first author is, of course, particularly readable paper. But we look forward to reading more papers as we try and navigate these white waters of cannabis and legalisation and use.

Kevin Hill: Thanks for having me.

David Gratzer: Thank you.

[Outro]

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