Title: Complexity of ADHD with Comorbid Disorders
Date & Time: Nov 14, 2023 01:00 PM Eastern Time (US and Canada)

APA: Hello, and welcome to today's webinar, Complexity of ADHD with Comorbid Disorders. This webinar is paid for by Pearson. Pearson Clinical Assessment provides reliable, well-validated tools that are trusted globally to help professionals like you improve the lives of your client. Some important points before we get started. Thomas E. Brown, the presenter for today's webinar, is the developer of the Brown Attention Deficit Disorder Scales Assessment Tool, Brown ADD Scales. As such, he has both a financial and intellectual interest in the tool.

The purpose of today's presentation is to provide a balanced view on the complexity of ADHD with comorbid disorders. APA does not endorse any products or services. The content was created by Pearson and does not reflect the views of APA, nor its editorial staff. Please email advertising at apa.org if you would like to learn more.

Next, this program does not offer CE. However, we will email everyone watching live today a Certificate of Attendance. Certificates will only be issued to those who watch for a minimum of 45 minutes. A recording of this presentation will be emailed to everyone within the next two weeks. That email will also include a copy of the presentation slides. During our time together, you will be on mute. You can communicate with us using the Q&A box located on your webinar screen. If you have a question for our presenters, please type them in using that Q&A box and we will get to them at the end of the presentation.

A link to the presentation slides will also be posted in the chat box. If you miss them, we will email them to you along with the recording within the next two weeks. With that, I would like to introduce today's presenter. Dr. Thomas E. Brown earned his PhD in clinical psychology at Yale University and served on the clinical faculty of the Department of Psychiatry at the Yale School of Medicine for 20 years while operating a clinic in Connecticut for children and adults with ADHD and related problems.

He has taught continuing medical education courses on ADHD for the American Psychiatric Association for the past 18 years and has given lectures and workshops in hospitals, medical schools, universities, and for professional and advocacy groups throughout the United States and in more than 40 countries.

Dr. Brown is a clinical professor of psychiatry and neuroscience at the University of California Riverside School of Medicine and is an elected fellow of the American Psychological Association, the APA Division of Psychopharmacology and Substance Abuse, and the Society of Clinical Child and Adolescent Psychology. He has published 30 articles in professional journals and seven books on ADHD with translations into 12 foreign languages. Welcome, Dr. Brown.

Thomas E. Brown: Thank you very much. I'm happy to be here. [silence] The topic of today's presentation is basically a recognition that ADHD, which is a disorder that many people have heard of and a lot of people suffer with, either themselves or members of their family, is just a complicated disorder by comorbidity. Many of you already know that term, but if you haven't heard it before, it's just a way of talking about having one medical problem or disorder along with something else. One

person one time who said, that sounds so morbid. Is it sad, is it about dying? No, it's not about that, it's just saying this is complicated.

The thing about this is when you look at people with ADD, what you find is that at least half and up to about 70% of the people who have ADD also have something else that's complicating it, some other psychiatric or learning disorder. What that means is it's not only possible to have another disorder along with ADHD, it is six times more likely in the lifetime of somebody who has ADD and for those who do not have ADD.

Next slide, please. This model is one model of ADHD, this is the one that I have developed. I'm not going to be talking about the model today, except to say that I think of ADHD as not a behavior problem primarily, but as a problem in the unfolding of the development of the brain's self-management system, like executive functions. What you see here, you can get more information about-- I've got a 28-minute video on YouTube, which has been pretty widely circulated and used. Basically, we're talking about that ADHD itself is not simple.

It involves getting organized and getting started to get things done, being able to focus and then shift focus when you need to, being able to regulate alertness and sleep and sustaining effort and processing speed, managing frustration and modulating emotions, utilizing working memory, this is short-term working memory, you have to keep in mind one thing while you're doing something else, and monitoring and self-regulating action. It's not like everybody with ADHD has big problems with every one of these things, but these are things which usually show up with people who have ADD. That in itself is complicated, but what we're talking about today is that often along with that, there's some other things.

Slide, please. There are several different ways of thinking about comorbidity, and let me just clarify them briefly. There's cross-sectional, which means a lot of research studies will just take a period of say six months or maybe a year of studying people, and they'll tell you about what comorbidity there might be during that period of time. There's also the lifetime, how much has a person had of other disorders overlapping with ADHD?

There's also a dynamic comorbidity where, for example, the anxiety just is very sensitive and pops up at various times, not constantly with somebody, but in ways that can be problematic. There's also the sub-threshold, meaning that the person may not have all the official diagnostic criteria for ADHD and this other disorder, but they have enough overlap of it that it's making trouble. When you're reading about comorbidity, keep in mind that there is these different ways that it can be understood and the term can be utilized.

Slide, please. This is a diagram that was produced back quite a while ago in a major study that was done on kids with ADHD, and it was designed to show that there are a number of other things they found with the kids who had been identified as having ADHD. You can see that in this Venn diagram that they all had ADHD that was incidentally-- Sometimes you'll hear me say ADD, sometimes ADHD, I use those two terms interchangeably.

This is what it's saying here is that about 40% of those particular kids had oppositional defiant disorder, about 4% had mood disorders, 34% had anxiety disorders, 14% had conduct disorders, and about 11% of them had tics. That's just for this study of these kids. Slide, please. Let me just mention who they included. They did not include people with learning disorders.

It doesn't have anything to say about people who are dyslexic or dysgraphic or have speech or language problems. They were only looking at combined type ADD, they were not looking at people who were inattentive. The sample, it was a remarkable study for its time, but it included only seven to nine-year-old kids and it was cross-sectional, meaning, that they were only looking at these kids during a period of 6 to 12 months. It gave us quite a bit of information, but it surely did not give us as much as we need to have in order to really understand this.

Slide, please. This is looking at a different age group and this is a study that was published back in 2010 after a considerable study. They were looking at kids between the ages of 13 and 18, and it had a large sample, they were over 10,000 kids. Of those, you can see the numbers for how many had a mood disorder, 14%. About a third of them had some anxiety disorder. A little under 20% of them had some behavior disorder. A little more than 10% had a substance use disorder that could be drugs or alcohol.

About 2% had problems with eating disorders, and then there are about 45% of others who had something else in the way of a disorder.

Look at that bottom line in the yellow. If you think about each of these items on the list, each was a class of disorders. 58% of those kids who had been diagnosed with ADD had at least one additional psychiatric disorder. There were 24% who had at least a couple of them, and a little under 20% had at least three of these different types of problems concurrent to their having ADHD. We're talking about something that's pretty complicated.

Next slide, please. This is looking at the adult population, and this was another large national replication of the National Comorbidity Study. What we're getting here is reports in terms of percent, but also odds ratio. An odds ratio of one means it's not different from the general population, and an odds ratio of 3.5, as in the case of mood disorder, means it's three and a half times as much as you see in the general population.

Here we're looking at any mood disorders over the past year, and then looking at any mood disorders over a lifetime. That's where you get that 45 number, 45%, or triple the frequency for people who have ADD relative to the general population. Any anxiety disorder, it's up to almost 60% over the lifetime. Substance use problems, a little better than 35%. Any impulse disorder, if you take any psychiatric disorder of any kind, we're talking over 88%, which means that a lot of people who have ADD have one of these problems at some point in their life within and some of them have several.

Slide, please. This national comorbidity sample that we just looked at for adults, included any disorders at any point in the entire lifetime, but it included only people

18 to 44 years old. It didn't include any learning disorders, and it was based on self-report of symptoms. There's some limitations to it, certainly, but it certainly is emphasizing the fact that for many people who have ADD, there's several other things related to that in the way of psychiatric or learning problems.

Slide, please. The question that would appear to most people in looking at this information is, what the hell's going on? Why are there such high rates of these other problems along with ADD? Why is it that an adult with ADHD is six times more likely to have at least one other diagnostic? This should say DSM-5 disorders, a more recent book, but anyhow, the same issue. Why is it that there's such a frequency of these other disorders along with ADHD? That's one of the things I'm going to try and talk about a little bit.

Slide, please. There are a lot of people who think about comorbidity in what I call the Fruit Salad Model, and that is thinking that each one of these over 200 disorders listed in the diagnostic manual is seen as a separate, a discrete entity like it's a separate tree making its own fruit. If you look at it that way, comorbidity is seen as though it's just a chance convergence of the genetics. That model doesn't recognize much the overlap between these disorders or the hybrid variance of them. I think we need a different way of looking at it.

Slide, please. The understanding that I have been writing about for quite a while, I just was representing with that chart that we started with of ADD, is that it's a developmentally impaired executive function delay. These executive functions cross the boundaries of disorders. They cross the boundaries of different brain structures. There are many parts of the brain that are involved in these and the boundary between pathology and normality, which is just to say that in many cases, the problems that they're having are like all the rest of us, but then, they also have some other things that are making more difficulty. ADHD is not just one disorder among many. It actually cross-cuts many of these other disorders.

Slide, please. What I'm proposing is an alternative way of looking at this comorbidity, that ADHD is a developmental impairment of executive functions, that's what I alluded to at the beginning. These functions just don't fully mature in the person in the way they would be for most others of similar age. It's not just one disorder among the many disorders, it's really a foundational disorder that cross-cuts these other disorders and increases in the process risks from those other disorders.

Slide, please. Comorbidity involves both some general level of executive function impairment, that's what I'm suggesting. Specific impairments of things that have to do with the brain's information processing, its regulation of mood and arousal and motivation, and its regulation of social-emotional functioning that are different from executive functions for most people, either in the quality or in the degree, how much trouble it's making for them.

Slide, please. Dr. Banaschewski in Europe wrote one time back in 2005, something that I think is worth remembering, that many deficits of ADHD are really shared with other disorders, and some of the differences between ADHD and these other disorders may be quantitative rather than qualitative, that they have a little more of this than it might be common otherwise. An example would be irritability, for

example. Eric Mick at Harvard published a paper about irritability that, with many people with ADD, we see that they've got some difficulties with irritability. Not everybody, but many. For some, it's much bigger than others.

There's also irritability, which is part of depression for many people. Depression is something which in many people who have ADD, but not everybody. You certainly see irritability in bipolar disorder, which is a completely separate disorder that does often occur among people with ADHD. Not everybody with ADHD has bipolar, but many with bipolar also have ADHD.

Slide, please. Let's take a look now at the different types of comorbid problems, the different types of things that could make trouble. What I'm trying to do here is to summarize some of the research so you can get a sense of how often some of these things show up together. For anxiety, I'm talking now about the whole range of different kinds of anxiety problems. Among kids, the general population is about 5% of kids in the general population who have some anxiety problem. Among people with ADD, it's between 9% or 34% of those with ADD who have some anxiety diagnosis. You see it's a fairly wide range. It depends on which but some of these studies were for one type of anxiety, some for others.

In adults, almost 30% up to a little less than 50%. How about depression? With kids, you don't see quite as much, 14% to about 22%. With the adults, the number climbs into more than half. The point here is that many individuals have one or both of these problems, anxiety or depression. The question is, what do you do about it? One thing that I think is a general bit of guidance is, we usually treat the most acute problem first. For example, if somebody is having a lot of suicidal ideation and we're worried that they might possibly hurt or kill themselves, that certainly gains priority in regards to what else is going on.

Vegetative signs, where they're having a lot of trouble with eating or sleeping, that's going to take a big toll and we need to pay some attention to that. If they're having panic disorder, where you certainly have your heart starts beating fast and you have shortness of breath, and it just feels like you're having a heart attack when you're not, those are things that you want to get to pretty quickly.

The stimulant medicines that we often use for treating ADHD, because they work the best for most people, may worsen anxiety or irritability, but on the other hand, in many cases, they help to alleviate it. It's important to know it can go either way with these medicines.

We also want to take a look at problems with attentional problems, and the working memory that occur as parts of anxiety and parts of depression, as well as central symptoms of ADHD.

Slide, please. Bipolar disorder. The estimated rates here, you can look at it, it's a wide range, 2% to 21% of kids, and 3% to 17% of adults. You know what makes the difference is that there's some people who describe bipolar disorder just in terms of the fact that there are times when the person is pretty depressed, and then there are other times when they're revved up. This involves not simply a matter of being able

to regulate emotions, but also to be able to hold back and manage actions and manage their level of arousal.

The reason that these numbers is so wide is that, there are some people who are really looking for very distinct periods of those symptoms, and others are taking a more general view. If the level of arousal is chronically too high or made worse by stimulants, then medicines like guanfacine or some of the mood stabilizers would usually be preferable. Once you've got the mood stabilized, then with this person who has a bipolar disorder, if needed, stimulants might be added, but you've got to get the mood stabilized first. It's a matter of where your priorities are going to be in trying to help kids, teenagers, or adults who are suffering from bipolar disorder.

Slide, please. Another thing that's important is to keep in mind the question of, moodiness is something we see in a lot of people who have ADD. What this slide is suggesting is that you might want to compare ADHD and bipolar disorder. If you see one plus sign there, that's saying, yes, it's sometimes the irritability, the rage that sometimes in bipolar is also apparent in some people who have ADD, but certainly not in everybody. Hyperactivity, that's episodically a big thing for people who are bipolar, but not constant. It occurs often in ADHD, but keep in mind there are many people with ADD who do not have any problem with being hyperactive.

For years, this disorder we now call ADHD was just seen as hyperactivity. It was first written up in the medical literature back in 1902. For a long time, for decades, it was just little boys who couldn't sit still, wouldn't shut up, or drive everybody nuts, it was behavioral stuff. We now know that it's not just for little boys, it's also for little girls, and it's also for older children and for teenagers, and persists in many cases into adulthood. Inattention is a key problem in ADHD. People with bipolar have a lot of trouble with that too. Depression, you have an elevated rate of depression in people who have ADD, but it's not always present, and in bipolar, that is a part of the defining disorder.

Substance use. People who have ADHD are at higher risk of having problems with drinking too much or with doing too many drugs, but that's something that is not for everybody, it's just a certain percentage of people and you see it a lot more in bipolar disorder. Psychosis is not part of ADHD where you get thought disorder and confusion about what's real and what's not. Bipolar often is accompanied by thought disorder. The point here is that it's important to recognize that, yes, ADHD has overlaps with a number of disorders, but the degree to which those other more severe symptoms appear, it's not constant in people who have ADD.

Slide, please. Oppositional defiant disorder. If you're looking primarily at people who have ADHD and particularly have kids who have ADHD of the combined type, where it's not just inattention but also hyperactivity, often you have with those kids about a third of them or sometimes more depending on how many of the kids are the combined type who have oppositional. [chuckles] I often refer to those kids who live with their middle finger up. Often they're angry and irritable and defiant and they'll do what they damn well want to and sometimes, "I'll get you back for this."

It may be the thing that just is a quick impulsive episode that from them from time to time, or it may be a more sullen sustained way of fighting the system, particularly

with the grownups, whether they're teachers or parents. Oppositional defiant disorder doesn't just involve how you feel, but often there also are overt verbal things. They run their mouth in ways that are pretty gross sometimes and certainly oppositional and sometimes there's physical action involved. When does it happen? Usually, you begin to see it about 12 years old and some kids start a lot earlier, but it may last for as long as about six years, usually gets a little better.

The main thing to know is that a kid who has oppositional defiant disorder does not usually turn out to have conduct disorder, which is more serious delinquent behavior. If you draw the line at 18 and say, how many have it, 70% of them don't. Most of them just never develop conduct disorder into, as a result of the oppositional defiant. Many of them respond to stimulants and or guanfacine or a mood stabilizer.

Slide, please. Conduct disorder. This is a term which is used to talk about more serious delinquent behavior. The lifetime incidence is pretty small. All of these numbers depend on which studies you're looking at, but someplace in the vicinity of about 4% to 7%. That's serious delinquent behavior, which is physical cruelty to people or people stealing from people where there's confrontation of the person and getting the money from them rather than just grabbing something on a counter in a store.

Fire setting or persistent truancy. People who have conduct disorder don't necessarily have all of these things, but these are examples of difficulties that often go with this more delinquent behavior, which is then labeled as conduct disorder. Of course, these people also have a higher risk of substance use disorder. They're more likely to be drinking and/or drugging. For these patients, sometimes stimulants or guanfacine that we usually use for ADD may be useful, but there are usually a lot of other things that need to be done to work effectively with helping these adolescents who are getting into more delinquent behavior. It has to do not just with what the individual is doing, but also who they're hanging out with.

Slide, please. Often, people don't think about ADHD as related to sleep problems, but the fact is that there are many people who have ADD who do have problems with sleep. For some, it's difficulty falling asleep, that they are tired, they get into bed, they want to get to sleep, and they just can't shut their head off., or they're busy doing things and staying up way too late, and then can't get themselves to slow down. There are some people who have that, but then they sleep soundly, and then there are other people who have difficulty with staying awake or staying asleep, where they awake several times during the night.

If they have to get up to pee, then sometimes they can't get right back to sleep and they might be awake for another hour in the middle of the night because their sleep has been disrupted. Another problem that you sometimes see along with difficulty falling asleep is problems with awakening, being able to get two feet on the floor and move around. There's some people, particularly if they're just not getting enough sleep, have a lot of trouble waking up and getting started.

Certainly with these problems of difficulty falling asleep or difficulty with awakening or disrupted sleep, intermittent awakening, often that's associated with people who feel drowsy during the day, where it's like their eyelids are droopy. That's something that

can be a problem in itself, these sleep problems, or they could be things that are associated with major depressive disorder. It could be associated with anxiety disorders, substance use disorder, or sleep apnea, where the person just has the problem where there's a blockage of the airway. It's something that in some people who are overweight and a lot of older folks.

Sometimes a late afternoon dose of stimulant may help a person to be able to get to sleep.

or it may make it difficult for them to get to sleep if they do it late enough that the medicine is still potent. It requires taking a look. If we're going to deal with somebody who has these problems, we have to assess to find out what their sleep schedule is like and what they're able to do, and then, of course, consider the possibility of anxiety or obstructive sleep apnea.

What can we do about it? For difficulty falling asleep, Melatonin is often, Benadryl, clonidine are regularly used for many people, and clonazepam, Klonopin. For the waking up, there are a number of adolescents who have a lot of trouble waking up in the morning as well as some adults. One thing that I've found works well with patients who are really having a lot of trouble getting up in the morning, even when they've had adequate sleep, is if somebody else is up and can wake them up about an hour before, they need to get up with an understanding that they don't have to get up.

All they have to do is prop up on one elbow and take the pill and a glass of water for their morning dose of the stimulant, then roll over that and go back to sleep. It might make it a lot easier for them to be able to get up when they do need to get up. Another possibility is to use a methylphenidate patch of DAYTRANA during the night if they're sleeping way too soundly. These problems often occur in conjunction to other problems, but there's some people where the sleep problem is itself a big problem to somebody with ADD.

Next slide, please. OCD. There are a certain number of normal obsessions or compulsions that many of us have. We've got to do things a certain way, we feel comfortable in our routines, but there are also some people who have obsessive-compulsive disorder in ways that really interfere with their functioning.

Sometimes, they get stuck in and having to stay focused on this or that particular thing, or they've got certain rituals. A simple example is, I had a kid not long ago who had to count the stairs as he was walking upstairs in his high school. If he got busy talking with somebody as he was going up and lost count, he then had to go back to the bottom of the stairway and do it all over again.

Now, obviously, that doesn't make sense rationally, he knew it didn't make sense, but it was a compulsion that he felt. That's just one simple example. Excessive perfectionism. I've had a number of students who worry too much about having everything exactly right and will repeatedly make copies of it. Stimulants sometimes worsen ADHD when it's along with obsessive-compulsive disorder, and sometimes will help. Most often, we use SSRIs like Prozac, Paxil, Zoloft, and sertraline, that'll help OCD, usually, but it's not an effective treatment for ADHD. As a result, often, we

need to use ADD medicine and the SSRI together. For some behavioral treatment, sometimes of OCD, behavioral treatment can be helpful.

Next slide, please. Substance use disorders with ADHD. These are odds ratios for substance use disorder in adults with ADHD. The number of people who have ADHD who regularly use nicotine or cigarette smokers is between-- This is not a percentage, it's an odds ratio, which means it's at least two times or more what you find in the general population. Alcohol, 1.4 times or 1.7 times, these are not percentages, they're odds ratios. Weed. How many people are smoking weed or eating edibles?

One and a half times as many people in the general population are using it among those who have ADHD, and probably double the incidence of use of marijuana regularly. Cocaine, it's double. Any substance use disorder is likely to show up with ADHD. The medicines that we use for treating ADHD don't alleviate substance use disorder. On the other hand, there are some people who have provided treatment, and they want somebody to not be getting medicine for ADD until they've completely cleaned out their excessive use of any of these substances. Usually, that doesn't make so much sense.

If you're going for total abstinence, it's likely to be a much longer trip than going for harm reduction where you can gradually cut down on the amount of use a person's doing and then help them deal with relapse prevention. Sometimes, these things are so heavy-duty, they need to be in a rehab program. There are many people where this can be done in outpatient programs or in individuals treatment.

The relapse prevention is an important part of it, because many people who are involved in using this substance can get themselves clean, and then, something happens where they're upset, or just get involved in partying, or there's many events of their lives, and they're back to using the same stuff that they have such a problem getting rid of before. Relapse prevention is critical because if you're just looking at somebody getting clean and expect they're going to stay there, that's just not the way it works, usually.

Slide, please. Autism spectrum disorders. It depends on which study you're looking at, but anywhere from 20% to 50% of those who have ADHD also have autism spectrum. You also see it the other way that there is a high rate of ADHD among the autism spectrum. You're dealing with somebody who's got some difficulties with social impairment and some difficulty with empathy or non-verbal communication, developing friendships, pragmatic language, and so forth.

There's a wide spectrum of symptom severity and cognitive abilities. There are some who are the ones we used to call Asperger's, who are very bright and are able to do a lot of things cognitively, but they do have a lot of difficulty reading emotions in themselves and in other people. Sometimes, there's a lot of work that's been done on those on the autism spectrum who have serious cognitive limitations. Not so much is done to try to think about how best to help those who have average or above average smarts and have difficulty then with the problems of social interaction.

Stimulants can be used with these patients to treat their ADHD, but it's important to go up cautiously on it because their bodies tend to be very sensitive to medicines. Sometimes clinicians prefer to use Strattera or some other non-stimulant method for ADHD. If they also have OCD, which many on the autism spectrum do, then often, we can use successfully an SSRI like Prozac, Paxil, Zoloft, Luvox for that and/or for anxiety. These are much more complicated cases, and you really need a specialist to help with it.

Slide, please. The other thing that's important to consider is there's a diagnostic issue, and you run into this a lot with clinicians who have not been trained very much in this, or even some psychiatrists have trouble with it sometimes. There are a lot of different ways of looking at what are the problems. What does the patient feel, what do they feel that is making trouble for them and what are the people who are their partners or their children or their parents have problems? What's the timeframe that these symptoms have been showing up? What parts of their life are they doing pretty well?

There's some people who can do well in the academic side of school, but at the same time has some behavior problems, or there are some people who have temper problems and-- You are to do or look at the larger picture and not just go by what the immediate presenting problem is. Some of them may meet full diagnostic criteria for one of these other disorders, but you still have to ask, to what extent does it really make trouble, and then you've got your questions about what's the priority going to be. When you've got somebody who has ADD complicated by one or more of these other disorders that we've just been thinking about here. Is it an either/or thing that we need to treat just one or just the other? Or is it something where it's likely that we're going to be needing to provide treatment for one problem and then at the same time try and address problems with another? Slide, please. This is just an overview to say, look, I think you can already see from those things we've looked at that in about half of the people who have ADD, whether you're talking about kids or adults, there are likely to be some complications due to comorbidities, and those complicating factors often interact with one another. There's often a lot of family stress involved. Sometimes it's contributing to the problem and sometimes it's people's reaction to the problem. It's also important, when you're looking at an individual, to think about how are things going in the family, in their living situation?

Because sometimes you may be seeing one person who's having some trouble, but it may very well be that they also have problems that are system problems within their family or within their work system. The setting can make a big difference. Sometimes some settings are much more helpful and support people when they have these difficulties. Some of them complicate the material, like pouring gasoline on flames. You want to monitor the medications carefully, particularly if they're taking some medicines for the ADD, and then they also need some different medicines to deal with whatever their comorbid problems are.

One needs to think about, do we need to combine some of these medicines, or do we need to change one? In every case, it's important to look at the health of the person as well as their illness. Sometimes people did get to thinking that whether we're talking about kids or adolescents or adults, they have this problem and that's the only thing we see about them. Many people who have ADD have problems with

some of these things, but they also may have some other strengths, even when they're complicated by one or more comorbid problems. It's important to keep in mind improvement on these things is often slow and mixed.

Sometimes it gets better for a while and then it gets worse, better and worse, but it's worth the effort. Slide, please. I think one of the things that I like to emphasize when I'm thinking about treatment for people with ADD, particularly the more complicated versions where you've got a lot of other things going on, is to have realistic hope. There are some people who like to think, oh, we're going to get this all taken care of, and let's get right to it, and it's going to be a lot better, and make it seem as though the challenges could be easily met and you can do anything you really want as though all you have to do is want to change it.

What I'm proposing is that particularly for clinicians, people who are trying to understand this, it's important to remember every once in a while what the realistic constraints are within which a person's operating, and what the resources they have so they can select goals that are realistic and support their efforts needed to meet the challenges they have in the short term as well as in the longer term. These are complicated cases many times. There are some people who don't have just one of these disorders. They've got two or three of them.

The fact is these can be worked with. If you pay attention to the overall functioning and you remember to look for the strengths as well as the vulnerabilities and the difficulties, that can make a difference over the long haul. That's the kind of hope that I think is important for clinicians to have both for ourselves and also for helping the families and the patients that we see. I'll stop at this point and I'd be welcoming questions.

Operator: Wonderful. Thank you so much, Dr. Brown. We have lots and lots of questions in the Q&A box. We'll just get started. First, I'm going to combine a couple into one that are along the same lines. Could you speak to the role that chronic trauma or PTSD plays into ADHD?

Thomas: I didn't specifically talk about that yet, but the fact is that there are many people who end up getting involved in traumatic situations. For example, there are some kids who have mood disorders and then on top of that, get oppositional and defiant, or have mood episodes in ways that make trouble. Some people have difficulties as a result of their ADHD and their anxiety. What's important is to get a good diagnostic workup by somebody who can look the whole picture, both of the person and the surroundings in which they're working or living, and then try and address the complications.

Now, when it's trauma, that's a term which may involve, for example, somebody-- I'm thinking, for example, of a woman who grew up in foster care. She was put in foster care because both of her parents were alcoholic and were not able to take care of her. She was put in a foster care home where the father and the older brother she had in the foster family were both using her sexually from the ages of 7 to 13. That's trauma. It wasn't just once or twice, it was happening several times a week. That's a trauma. There's some people who've been in terrible motor vehicle accidents.

There's some people who have-- a lot of kids have parents who have big time drinking or drug problems. Some of them lose their tempers easily and sometimes take it out on the kids. When you've got a situation like that, it's important for the clinician to be sensitive to-- Sometimes people don't tell you right off the bat. It's important to inquire and then see if there's something particularly difficult, particularly if it's also ongoing.

The fact is people with ADD often have-- Certainly it's not part of everybody who has ADD, but there's certain kinds of trauma. Sometimes it's just a single thing like a terrible motor vehicle accident where they got hurt and other people got hurt and so forth. Other times it's the physical or sexual abuse or sometimes emotional abuse where one is living with another family member who gets drunk a lot and when drunk gets very hostile and demeaning, and sometimes emotionally and physically brutalizing people. That takes a lot of special attention.

Operator: Thank you, Dr. Brown. Also, I've gotten a lot of questions about if you could speak to the differences in how ADHD presents in men versus women.

Thomas: Usually the boys get picked up a lot earlier than the girls do, which is in a way a problem because there's some girls who have a lot of difficulty with inattention and they're not having any behavioral problems that are making trouble in the classroom. It's also true that there are many women who suffer with ADD, and it's not a matter of misbehaving in school. It may very well be that they just have a lot of difficulty being able to concentrate and to be able to organize their work and their relationships. The problem is the people who make the most trouble usually get noticed first, and it's often the males.

There are many women who suffer with ADHD in ways that just make life difficult for them and often for other people as well. It's important for them to be able to understand it. Then there are also the complications. For example, I've done several papers on the impact of menopause. I've seen a number of women who are mothers who brought their kids in for treatment. I'll go through reading the, do you have this, do you have that diagnostic lists? I remember one woman in particular who said, I never had any of those problems when I was a kid, but recently I've had a lot more trouble with that kind of forgetfulness, that difficulties, drifting off and not being able to pay attention.

I had several women who were mentioning this over a fairly short period of time and became clear that what they had in common was they were perimenopausal. The fact is when the estrogen level drops, as it does in menopause, estrogen becomes problematic by its absence, or is diminished contribution because estrogen is one of the primary modulators for the release of dopamine in the female brain. That's a thing where later onset, I published several papers on this, midlife onset for women with ADHD. At the time of menopause, the ADHD gets much more problematic for many of them, and sometimes it appears for the first time.

Operator: Thank you. Another question we've gotten several times worded in several different ways. It has been evident in the news there have been several cases in the last couple of years where access to medication has been limited due to supply chain issues. Do you have any recommendations for practitioners, providers

who are treating patients that are unable to get access to their medication due to those issues?

Thomas: It makes it very difficult. I think the one which is most widely publicized is shortages of Adderall. The clinicians have a responsibility then to try to take a look at what are the needs that the clinician is trying to address with this particular medicine. Sometimes there are other medicines that may not be as widely recognized that can be just as effective. Now, sometimes you run into cost problems where they're a little more expensive, but not always.

I think it's important for a person who's holding a prescription they can't get filled to get back to their clinician who's made the prescription and ask them to think about, what other options are there for something that might be able to address the symptoms that we're **[unintelligible 00:51:45]** and need help, that might be more readily available? Because I've had mothers and dads who have called in saying, we've been to six or seven different pharmacies and you get it once and then a month later, they're out of stock." Part of that is that there have been some manufacturing problems with these medicines, particularly with the Adderall, and the people are working to try to get that improved. It is a problem, but usually, there are other medications other than the ones that are first-line that can be used.

Operator: Thank you. Let's see. Time for a couple more. Could you speak further to ADHD in childhood and the difference between ADHD in children and adult?

Thomas: Usually, the ADHD that's picked up in kids is misbehavior. With adults, if it's misbehavior, they may be getting picked up by the cops if it's serious misbehavior. The problems that you see far more often with adolescents and with adults have to do with the cognitive impairments. People who are struggling to be able to do their job as a student or to do their job as an employee in whatever business they're in who just have trouble remembering things. It happens sometimes in a situation where they can remember certain kinds of things very easily, but then they're very forgetful about other things, or they just have difficulty sustaining focus.

Many people who have ADHD as adults are not making any trouble for anybody else, but when they go to read something that is not super interesting to them, they read it and they understand the words, and they turn the page to get to the next page, and they start reading it, and they'll stop for a second and realize that they read every word on the previous page, and they have not got the foggiest idea of what they just read.

They've got to go back and read it again. That's an example of something that is bad enough, it only happens once in a while, but if much of the time when you're reading you're having that difficulty, it can really interfere with your work or with your studies. It's not just behavior problems in those situations. Often you can help them with medications that we normally use for ADD.

Operator: I believe that comorbidity had not been discussed. Could you speak to the comorbidity of eating disorders with ADHD?

Thomas: I haven't picked up on it, but the incidence of them, there's a certain number that you see. It's not something that happens really commonly among people with ADD, but it sure does happen. It is typically something you see with young girls, but it happens also sometimes with boys. Sometimes it's the anorexic thing where they just are hesitant to eat or unable to eat, or so picky about what they can eat or are willing to eat. It gets very problematic. Then there are others where the problem is that they feel fat even when they're getting skinnier and skinnier, that they're anorexic.

Then there's some people who have binge eating where they'll puff up and gain far more weight than is healthy for them, and then go on binges of trying to cut that down where they starve themselves and get this back and forth between the bulimic picture, and then feeling like I can't eat anything. That's complicated work, but it's something where a lot of people who have it really benefit from the treatment programs that are now available. We know a lot more about eating disorders now than we did even 10 years ago.

Operator: Great. I think we've time for two more questions. A good one that's come in a couple of times. Do you think that ADHD in general is on the rise, or are we just catching it and diagnosing it more?

Thomas: I think that the incidences of it is-- it is certainly being recognized more than it used to be particularly in adults. Years ago, it was just kids were misbehaving as those were the ones that were quickly picked up. I'm sure there are some cases where people have found it more comfortable for them to come in and complain of having ADHD, when in fact the main problem is that if they're drinking too damn much or that they're clinically depressed, or they are being traumatized by physical or emotional abuse, and so it's important to recognize that sometimes ADHD is the thing which is easiest to talk about for many people.

It may just be one piece of a much more complicated set of difficulties a person's facing. I think it's better recognized now than it used to be, but it's also true. I've had many people come in who've been seen by doctors who have said to them, oh, one place where you really see it is with really bright kids in school that often they come in and ask about whether they have ADD.

The teachers or sometimes the doctors will look at the report cards and say, oh, you're getting good grades. You couldn't have ADD and still get these good grades. When, in fact, they are struggling to be able to keep their head above water because of ADD. In some cases, they're able successfully to get pretty good grades, but long-term picture for them is still much more complicated.

Operator: Thank you. We will end on this question. Do you have any resources or tests in particular that you recommend when evaluating ADHD and other comorbid disorders?

Thomas: I think the most valuable resource is a clinician who's had some experience in training for being able to recognize ADHD and the possible comorbid disorders. There are some cases of ADD, they're really pretty simple for an average pediatrician or an average physician. There are also some non-specialists who are

not psychiatrists or psychologists who are pretty good at doing this kind of diagnostic work.

It's also true that if you have a problem where the doctor you're working with just doesn't seem to get it, it's a good idea to look for another doctor and see if you can find somebody else who might be able better to understand what you're up against. Because these are difficulties which can be worked with. Even the more complicated ones where it's ADD plus a learning disability, plus a mood disorder or something like that, they're more difficult to manage, but it can get better

if you can find somebody who's had enough training to be able to work with the patient and the patient's family.

Operator: Thank you so much, Dr. Brown. We are at time. Really appreciate your presentation and answering the questions today. Thank you to all of our listeners for your participation. We'd also like to thank Pearson for making this webinar possible.

Thomas: I think all of you helped to make it possible.

Operator: Absolutely. So many wonderful questions that came in and so many that we didn't get to today that I wish we could have. Thank you, everyone, for your participation. A recording of the presentation will be emailed to everyone within the next few weeks. That email will also include a copy of the presentation slides. As soon as the webinar has ended, a short survey will appear on your screen. We ask that you take that and give us your feedback so we can improve our future programs. Thank you, everyone, again, and Dr. Brown. We hope you have a wonderful rest of your day.

[01:01:09] [END OF AUDIO]