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ADHD IN THE COURTS

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(This is an edited transcript of Dr Stevenson's presentation)

1. My topic obviously is ADHD in the courts and there is an awful lot of information to get through in the next half hour so I'll never do the topic justice. But I am actually going to pretty much give you a broad talk of the implications of ADHD and talk about the assessment and diagnosis. So in terms of an overview I'll start by looking at what ADHD is, how it should be diagnosed, the relationship between ADHD and crime, some of the implications for the courts, treatment issues and then sum up.

What is AD/HD?

2. In terms of considering what ADHD is, it is probably where we should best start. ADHD is not a new disorder. We have known about an ADHD type syndrome in the medical literature since about 1902. George Still was one of the first people who wrote about the disorder and at that time he was calling it a disorder of moral control. Basically, if we look back at that first case study which was in the Lancet, today we would diagnose this as a combination of ADHD, learning disorders and what today we would call conduct disorder or anti-social behaviour. But, the disorder specific to ADHD has pretty much evolved overtime until what we've got today, and what we have is attention deficit hyperactivity disorder which is a disorder characterised by these symptoms: inattention, hyperactivity, and impulsivity.

How should AD/HD be diagnosed?

3. In DSM 4 there are now characterised three sub-types of the disorder, so you can be diagnosed with what is called an in-attentive type of the disorder, where your symptoms are predominately to do with cognitive impairments. So you will have difficulty paying attention, you would be chronically disorganised, you would have memory impairments and you would also have difficulty motivating yourself. There is a second sub-type that you can be diagnosed which is called the hyperactive impulsive type where your symptoms are primarily to do with not being able to control your impulses, so that you are chronically impatient and hyperactivity which in adults manifests as being extremely restless and fidgety. And then the final type of ADHD is what we call the combined type, and in the combined type you have both, you have the inattentive symptoms and you have the hyperactive impulsive symptoms.

4. Now in order for us clinicians to make the diagnosis, symptoms have to be present before the age of seven. That's absolutely vital - you cannot suddenly have ADHD at twenty-one. I mean that it is possible that you weren't diagnosed but we need to have evidence of these symptoms in childhood to give a later diagnosis. It is also significant that symptoms have to be present in more than one setting. This is to overcome the problem that some children apparently behave appropriately at home but then mess up in school or vice versa. So, to eliminate the possibility that this is just to do with poor supervision, there is a criteria that ADHD has to occur in multiple settings to give a diagnosis. In addition to give a diagnosis of ADHD you need to be able to exclude a whole series of other disorders. You have to be able to exclude that the symptoms are caused by psychosis, a mood disorder, which is basically a depression, or anxiety, because many other disorders will replicate symptoms of ADHD. So making a diagnosis it has to be extremely thorough so that you actually exclude other possibilities for the presenting problem.

5. The other thing that has to occur is that if you want to give an adult diagnosis that's also possible, and in adulthood there is a criteria which you can use which is called 'in remission'. So you can diagnose ADHD in adulthood with less symptoms than you would for a child. That is a really important point. In the categorisation that we have in DSM it's called in-remission. But I guess that is a bad name because it's not like it goes into remission and comes back again - all we are trying to say in this point in time is with the reduced set of symptoms you can still be diagnosed ADHD in adulthood.

6. In terms of understanding the types of behaviours you would expect from somebody with ADHD you are looking at things like impulsive behaviour. Here we are talking about not thinking before acting and being very impatient - an intolerance of being able to wait your turn. There is a limited capacity for self-control, especially under stress, so these symptoms of impulsivity, if you put somebody under stress or if they have been drinking alcohol, they are less likely to manage their behaviours. People with ADHD do not respond well to repetitive and uninteresting activities. This is controversial - most people would say the same, that they really cannot cope with boredom and seek a high level of stimulation to be able to complete tasks. In addition people with ADHD have a low threshold for emotional arousal and they exhibit strong emotional reactions to situations particularly if you put them under stress. One of the things that typically happens is that they will be in a situation and will explode in anger. They will walk out the room and will walk back again because they think the thing is resolved - they just have no understanding of the consequences of their actions. Everybody else is reeling from the shock and they have said "well it's over and I have said sorry", and they just don't get this idea of the emotional response they leave in people.

7. People with ADHD require much more immediate and meaningful rewards - excitement and stimulation. And one of the things that is said to me over and over again by parents, is "why can kids with ADHD play computer games for hours and hours on end but they can't sit in the classroom". Well, this actually comes back to this need for constant rewards and stimulation. With the computer games you are being rewarded all the time for your actions and when you get into the classroom it doesn't happen, you are expected to be able to stay on task completely by yourself.

8. And the last thing about ADHD which is very typical, is they have a very low frustration tolerance. They cannot cope with the sense of being stressed, or with boredom - they act very quickly to eliminate those feelings and this often gets them into trouble.

9. So the direct consequences of ADHD are on day to day functioning. Most people of ADHD have extremely poor social skills. They do not read the body language of other people very well. They have enormous difficulties with their relationships. They are often in conflict with their parents, they are in conflict with the school and when they get into the workplace they are in conflict with their employers. In my own research I think I found over a third of people had been dismissed from work because of their ADHD symptoms. Obviously they have enormous difficulties holding down a job. They are also at really high risk of depression and anxiety.

10. One of the things that I think is really important to understand it is distressing and horrible to actually live with ADHD. It is not a pleasant sensation and people with ADHD often complain that other people don't understand. And I think that is because everybody thinks that they have these symptoms. But everybody does not have them at the intensity and at the level that causes impairment. Most people with ADHD would prefer not to have it – it is not pleasant at all. People with ADHD are at really high risk of substance use. And my hypothesis is about this one is that it is another way of trying to cope with the horrible feelings and symptoms they have which are associated with ADHD.

11. In terms of diagnosis there are two major criticisms about diagnosis of ADHD. The first is that many people say: “well I have these symptoms why are you diagnosing this person with ADHD and you are not diagnosing me”. Many of the symptoms when you just look through a DSM4 checklist are things like not getting to places on time, not being able to cope with stress, forgetting things, not being able to do your paperwork. Many people would say “well that's me - I don't get my paperwork done, I think forget things, I put my key in the wrong places”. What differentiates people with ADHD from the rest of us is the level of impairment and the level of distress. I don't go seeking help because these symptoms are causing me difficulties in my life. The real difference is impairment and distress to the person.

12. In addition to that, the other criticism around the diagnosis of ADHD is around differential diagnosis, meaning how do we make a decision that this is ADHD and not something else? Now, my argument here is that I agree that it is a difficult condition to diagnose but my argument is that it is not impossible.

13. We do have at least two sets of national guidelines on how we should be going about diagnosing this condition. There is the Australian Psychological Society which set out standards in 1997 and in 1996 the National Health and Medical Research Council which set out a set of national guidelines. My understanding from the National Health and Medical Research Council is that those guidelines are being currently revised. But the underlying message that we are given from these guidelines is that a diagnosis absolutely has to include multiple methods. So it's not okay to just go into a clinician's room and have an interview. That is not sufficient to make a diagnosis. When you are making a diagnosis you should seek information from multiple informants. So it's not just the client sitting in front of you who you should ask. You should ask other people in that person's life about the impact of these symptoms on their day to day functioning.

14. If you are making a diagnosis of an adult, there is a third step that has to be made, and that is that there has to be a retrospective assessment of their childhood. Because, as I said at the beginning, symptoms have to be present before the age of seven. So if you are making an adult diagnosis you have to have some evidence that those symptoms were there. The main way that we go about that is school reports, collecting their classroom reports to try to find out what was going on.

15. In terms of methods for making a diagnosis there are many methods than can be used. You are probably aware that there is something called the QEEG which is basically putting the little electrodes on a cap on your head and measuring brainwaves - that is one method we have. There is the clinical interview, there are rating scales, there are observation of the person's behaviour and the symmetric testing, the cognitive testing to look at their difficulties in areas of attention, organisation, and memory across the board.

16. What I'm arguing is that to make a diagnosis you need to use at least two or three of the methods that I've mentioned. And the weight of evidence has to support the clinical diagnosis. It doesn't matter which three, as far as I'm concerned, but as long as you actually use a combined methods. There is no diagnostic test out there - you can't do a blood test to prove that somebody has ADHD. It doesn't exist, we do not have one measure yet that definitively says a person has ADHD, and I guess that's part of the controversy right now.

17. In terms of thinking about causes of ADHD, ADHD is considered to be a neurobiological developmental disorder. So really we're looking at an impairment associated with damage or some deficit in the frontal lobes of the brain. We have gone through thirty-two labels for this disorder. It was called minimal brain damage, and that's basically what we're looking at. We are looking at a very minor brain impairment in the frontal lobes of the brain. The frontal lobes of the brain are the part of the brain which manages the attention, the organisation skills, the memory and motor-movement. I guess that's where the restlessness comes in.

18. We also know there is a very strong genetic component to ADHD. Florence Levy at the Prince of Wales Hospital has done some extremely good research looking at twin studies, and it is very clear that ADHD, or the competency to ADHD, runs in families. I also would say, in my clinical work, one of the main reasons that adults come forward for diagnosis is because their child has been diagnosed and they suddenly realise "gosh I've been living this all my life" but it is their child that has had the diagnosis before they come forward themselves.

19. There have been studies implicating environmental toxins, such as maternal smoking during pregnancy, but again, really what we're looking at is anything than cause a minor level of brain damage. There is always a wave at looking at food additives and high doses of sugar and red food dyes and this sort of thing. No food additive has ever shown to cause ADHD. What they seem to do is, for a small group (and here we are looking at one in twenty), is to make the symptoms worse. It's not really recommended going down an exclusion diet because unless there is some indication that food additives are causing impairment in ADHD, it is a lot of hard work. There have been a number of cases where families have gone to extreme levels and kids have ended up in hospital because they have taken them off all their food.

What is the relationship between AD/HD and crime?

20. In terms of looking at the association between ADHD and crime, this is yet another controversial area in the research,. What we do know is that child ADHD is associated with anti-social behaviour, substance abuse and under-achievement in adulthood. There is a clear link between ADHD and later developing anti-social personality disorder, which is basically violating social norms, and drug problems. In one study boys with ADHD were found to be seven times more likely to develop anti-social personality disorder or drug problems, and it is very clear that adults with ADHD are more likely to cause motor car accidents and have speeding offences.

21. Now in terms of understanding the link between ADHD and crime, this is where it starts getting controversial again. Most people feel that the link between ADHD and crime is actually mediated by another issue - that when you look at the studies it's all been boys that have been part of the research and most of those boys also had aggression, or oppositional defiant disorder, which means they were already in the pathway of violating some social norms. The argument put forward at this point of time is that it is not ADHD that's leading to criminal type behaviour – it is actually the presence of aggression that takes children down that pathway. So it is really thought that ADHD alone may not increase the risk of crime.

22. However, I could put a spanner in the works here, because it's not 100% clear. ADHD itself puts you at risk of not completing school and puts you at risk of substance abuse. In the most recent study that I read in preparation for this talk it was suggested that it is actually only that group of individuals who have the hyperactive impulsive type of ADHD that are likely to go down the antisocial aggression pathway. So research is suggesting that ADHD represents a risk factor for later criminality, but it is mediated by aggression during adolescence and early childhood.

23. There has been a paper written looking at four hypothesis of why ADHD and conduct disorder can occur so frequently. What this paper is basically saying is that ADHD and conduct disorder, or the violation of antisocial norms, are totally separate conditions because they occur on their own as well as occurring together. That gives supports the view that they are independent. But the reason that they co-occur is that the antecedents of conduct disorder are to do with social disadvantage. For example, they might come from areas of poverty or have parents who are not able to supervise them properly. If you have been socially disadvantaged it is more likely that, for example, your parents would have smoked during pregnancy, or that you had insufficient nutrition during childhood, or that you were in a situation where your parents were drug abusers and this might have affected your brain development. So you might have the factors which would lead you to have the conduct disorder and because you have come from a disadvantaged background you are more likely also to have the antecedents which would lead you to ADHD. It is more likely you might have been born prematurely or that your mother smoked so that your risk for ADHD is also high. But, if you didn't have the social disadvantage and you had the ADHD there is no increased likelihood of you going down the criminal path.

Implications of AD/HD for the courts?

24. Should the presence of ADHD excuse criminality? My argument always is that ADHD does not excuse bad behaviour. If you have a diagnosis of ADHD it's the pathway to actually getting appropriate treatment, and we do have some very good treatments now. So ADHD does not excuse criminal conduct, or render a person incompetent to stand trial. Research from the USA show that in the USA claims of ADHD could be used to reduce the severity of a sentence. For example, if a crime required proof of intent it might be reduced to something like reckless behaviour if ADHD was considered. So I think that really where we are at is:

- we are not saying ADHD is an excuse,
- we are saying that it should be considered because people often are not able to control their behaviour, in the way that somebody without ADHD could, unless they are being treated appropriately.

25. One of the things that I think is really important for me to mention here is the educational context. We have move extremely heavily towards giving people with ADHD accommodations - we are looking at ways in which they can succeed in the education context. So that this might mean that they can sit their exams in a separate room so that they don't have distractions. It might mean that they have extra time to sit their exams. It might mean that they have extensions on their work to allow for their disability.

26. One of the things that I would like to argue for is in the court room similar accommodation should be put in place for people with ADHD. One of the things that might be appropriate is more repetition of information because it's harder for a person with ADHD to take in the information. It also puts them under extreme levels of stress where it is even more difficult for them to understand what's going on. So more repetition is required. It might be important for them to take additional time to consider their responses. Again people with ADHD have a high propensity for being impulsive and just say the first thing that comes off the top of their head. If you are preparing a client with ADHD for the courtroom you need to actually get them to think before they speak - to slow things down. In addition, I have said repeatedly with ADHD respond very badly to stress - so it is important if you want the situation to be fair that communication is non confrontational - confrontation it is not going to help get the truth from the matter.

27. Finally, there is an enormous overlap between ADHD and learning disorders. Many people with ADHD have not done well in the school context. Their reading, writing and comprehension skills are typically poor, or poorer than a person without ADHD. Any co-occurring learning disorder should be considered in the court context. There are many people who come into my consulting room who have yet to learn to read, even though they are adults. This is really something that needs to be considered. Another is that people with ADHD try to hide all their problems. So they won't walk in saying to you, "I can't read" - you need to find out whether that is part of the presenting problem.

Treatment issues

28. There is no doubt that appropriate diagnosis and treatment can improve the life course of individuals with ADHD. The evidence is overwhelming that if you treat children with ADHD they are less likely to go down the criminal path. We are getting much better at keeping children with ADHD in school rather than leaving rapidly.

29. Australian guidelines state that medication should always be considered as part of the treatment plan for ADHD. I guess this has come about because the studies on the use of stimulants in controlling the behaviours of ADHD are very positive, extremely positive, the outcomes are really good and there is no research out there that suggests yet any harmful outcomes in terms of taking long-term stimulants. There is the suggestion that ADHD medication should be taken like insulin for the diabetic. You need to be taking it every day as part of the management of the symptoms.

30. It is also really important to note that they are alternatives to stimulant medication for those at risk of substance abuse. In Australia we have a number of new drugs that have come in over the last year which are basically anti-depressants with a stimulant effect. They can be used effectively to manage ADHD for both people who cannot take regular doses of medication and for those who we consider would be at a high risk of abusing or selling their medication. So just because they have a history of substance use it doesn't mean that they can't seek treatment now. Control trials for both children and adults that show improved symptom management.

31. What we also know is that medication should not be considered the sole treatment. We know that up to 75% of adults with a diagnosis of ADHD have another psychiatric condition as well. This means that you need to look at the big picture and just giving medication is not going to be enough. The research literature suggests that medication would only be useful as a sole treatment for adults with a high functioning ADHD. The majority would actually need a more comprehensive treatment plan. I have done a number of studies looking at psycho-social interventions and they are also proving particularly helpful. This is about teaching day to day management strategies like organising yourself, using a

diary, putting your keys in the same place, cognitive strategies for anger management. My comment here is that co-occurring problems also need to be addressed. There is no point just treating the ADHD and leaving somebody with a learning disorder which means that they can't get a job, or that they haven't dealt with their issues of anger or their resentment about how they have been treated.

32. There is no cure for ADHD. There are programs advertised for exercise and there are advertisements for mega vitamins and neuro-feedback. Everything helps a bit, but there is no cure for ADHD.

Conclusion

33. My conclusion is that I think it is really important that ADHD is considered a valid disorder. I think that diagnosis needs to be comprehensive. Individuals with ADHD who have a high level of aggression during adolescence and childhood are at the highest risk of crime. ADHD does not excuse criminal behaviour, and ADHD symptoms can be significantly reduced by appropriate intervention.