

# education

ROUNABOUTTHEATRECOMPANY

## *Distracted Lecture Series*

**On February 28<sup>th</sup>, 2009 as part of the Roundabout Theatre Company's ongoing Lecture Series, Ted Sod, Dramaturg for the Education Department interviewed Dr. Lenard Adler, the Director of the Adult ADHD Program and Professor Psychiatry and Child and Adolescent Psychiatry at New York University (NYU) School of Medicine in New York City, followed by an audience Q and A.**

**Ted Sod:** Dr. Adler, will you, in layman's terms, define ADD and ADHD.

**Dr. Adler:** We use the term ADHD now to classify all attention-deficit disorders. The criteria are the same for kids and for adults. The symptoms are those of inattention and hyperactivity-impulsivity. The symptoms of inattention are: Distractibility, trouble paying attention, misplacing or even losing things, and organizational difficulties; there are nine of them. We have to have either six out of the nine inattentive symptoms and or six out of the nine hyperactive-impulsive symptoms. The hyperactive-impulsive symptoms are: Restlessness, talking out of turn, interrupting others, trouble waiting, jumping out of your chair, and those who are unable to turn off at night. Symptoms alone are not enough to make a diagnosis. If you just had symptoms and had no trouble from the symptoms, what would you treat? You wouldn't treat symptoms alone. So, you have to have difficulty from the symptoms and it has to cause difficulty in two realms of your life. It can be in school or work and at home or in social settings. In psychiatry, unfortunately, we don't have a witness test, a brain scanner, or a blood test that we can use to make these diagnoses. The same thing is held true with depression and bi-polar disorder, so it's not just ADHD. You also have to have some symptoms going back in childhood. You don't have to have all of the symptoms, but some of the symptoms must be significantly present. Finally, you have to be sure that these symptoms are from ADHD and not something else. In general with ADHD, we think most of the transmission being familial, probably about 85%. If there is a child with ADHD there's a 40% chance that one of the parents has ADHD.

**Ted:** I think you mentioned when we chatted before that if the mother were a smoker that could also influence...

**Dr. Adler:** Yes, there are several more defining factors that are associated; maternal smoking during pregnancy is one of the things that have been associated. There are a couple of other adverse social conditions that are associated which can trigger it.

**Ted:** Does it manifest itself differently once someone becomes an adult? Is there a difference between children with ADHD and adults?

**Dr. Adler:** There is, actually. ADHD is very common. The World Health Organization has actually done world-wide surveys by going out to the community and doing structured interviews. That doesn't mean these children or adults are coming forward to be diagnosed, but they're in the community. Prevalence rates are fairly similar, actually, in the East and West in both adults and non-adults. It's not just for the hyperactive boys in the United States. The rates of ADHD are about 6-8% of kids and about 4.4% of adults. Now, adults are not just grown-up kids, they have a life-time of experiences in coping with their symptoms. The symptoms will have changed. The plain hyperactive-impulsive symptoms are: getting in and out of your chair, moving about, interrupting other people when speaking. These are obviously things that an adult would guard against. If you interrupt your boss in a meeting, that's going to have serious consequences. If you're climbing on your chair as an adult you probably have a whole other disorder, not just ADHD. There are also gender differences. Women tend to carry a heavier load of the inattentive symptoms. That, in part, accounts for why they tend to present a little bit later in life. If you are behaviorally disruptive as a child, you are more likely to be picked on in the classroom. But if you just won't pay attention and you are distracted, you may be seen as under-performing.

**Ted:** I was born in the 1950's and we never had ADD. We didn't have ADHD. Why is that?

**Dr. Adler:** If you go back in the literature, there have been descriptions about the symptoms of ADHD dating to the 1900s. There was a pediatrician, who actually wrote up descriptions of kids that we would call ADHD today. So, ADHD kids have been around for a long time. Are they being brought to our attention more today? Well, that's probably true. The prevalence rates are probably similar. Also, society is much more complex. Now, the amount of information that our kids have to handle and the pace at which they have to handle information is vastly greater than certainly when I was growing up and when you were growing up. That in itself brings symptoms forward. The world's not going backwards, this is a reality, but we're not choosing to medicate an individual just on the basis of the volume of information they have to handle.

**Ted:** Tell me a little bit about the play itself. If Jesse's mom and dad brought Jesse to you, how would you go about treating him?

**Dr. Adler:** Well, we don't have all the information we would need necessarily to treat a child. I can comment a little bit on some of the clinical things in the play. The diagnosis is still a clinical one. It's really based upon reports from the parents, the child, the teacher, and the others that see him. Neuropsychological testing was done and we do neuropsychological testing along with educational testing in part to get accommodations in school, but it's not, per se, necessary to make the diagnosis. You have to show differences in terms of functioning, information processing or how you keep things in mind; executive functions. That being said, the play did mention that optimal treatment for children is some form of psycho-social intervention, meaning either parent training or sometimes behavior therapy and medication. Frankly, the best results come from using

some form of psycho-social intervention and medication. Medications can play a significant role, if used appropriately, in treating children and adults. And as I've said, it's never been easy to medicate a child; the decision by any parent is never reached easily.

**Ted:** Peter Benson plays a number of characters and, at one point, he also breaks the fourth wall and starts to address the audience as the actor and says that Ritalin saved his life. Is it true that if left untreated, some people with ADD can get into trouble?

**Dr. Adler:** We know that untreated ADHD in kids going into adolescence has significant consequences. There are substantial risks in terms of driving; greater risks in terms of more motor vehicle accidents, more speeding tickets, and more erratic driving. Another risk includes a greater risk of substance abuse. I know it seems counter-intuitive, but you give a medication to someone to treat a disorder that will lower their risk of substance use. But studies have shown that the risk for substance use is cut in half by treating the ADHD. Cigarette smoking is twice as high in untreated adults with ADHD and that's a significant risk to the individual and of a public health concern. As the play shows you, there's a greater rate of divorce and separation for individuals with ADHD who are untreated. It is a big burden on the family and it's a burden on the family trying to raise a child with ADHD.

**Ted:** Probably one of the most famous diagnoses is Michael Phelps. He came to the attention of the United States as an Olympic swimmer and what's fascinating to me is this idea that a person with ADHD can find something that they're interested in and truly can excel at it. What causes that?

**Dr. Adler:** I don't know anything about Michael Phelps...

**Ted:** I just used it as an example.

**Dr. Adler:** For all of us, when we are doing something we like or we are interested in, it's easier to pay attention. That is magnified for an individual that has ADHD. It's really a disorder. It's really not just attention-deficit, there's selective attention, and again if you are doing something you like, sometimes it's hard to let go of it. So, individuals with ADHD sometimes have trouble shifting sets. They could be on the internet late at night, going around from site to site. Before the internet, it was flipping channels on cable TV and on occasion would stay awake watching Mary Tyler Moore re-runs. It's not the worst thing in the world, but if you don't sleep, it's hard to be productive the next day. So starting and stopping things can sometimes be difficult. If you do find something that you can channel some of your energy into, that has been shown to be helpful and it's certainly something that I talk to my patients about. It's a good thing.

**Ted:** Tell me a little bit about why the United States consumes over 80% of the world's Ritalin. In fact, when I interviewed Lisa Loomer, the playwright, she said that statistic inspired her to write this play. Why is that true?

**Dr. Adler:** Well it, in part, relates to the fact that we make this diagnosis and that Ritalin and Ritalin-based products are approved here and aren't approved in other parts of the world. I have talked to parents from other parts of the world and if they chose to medicate their child, they couldn't because they don't have medications that are available. That, in part, is a factor and I think if you look at diagnosis rates in the rest of the world, some of the data is showing that the rest of the world is starting to catch up to the USA.

**Ted:** What about excessive television watching? I've read some articles that say that this could exacerbate the problem. Is that true?

**Dr. Adler:** I think that studies have shown an association. There are lots of neurologic studies that look to see if people with ADHD watch more TV or have they been exposed to watching more TV. That doesn't prove ideology, it doesn't prove causation. Parents with ADHD sometimes report that the television will be something that their child will be drawn to. So, that's not the cause of it. It's just an association.

**Ted:** I want to talk a little bit about, and I don't know if you are prepared to do this, but as a psychiatrist you may be, Lisa, the playwright doesn't just focus on Jesse; she also focuses on the Jesse's babysitter who's cutting herself. Does that have any relationship to ADHD or is that a completely other situation?

**Dr. Adler:** Well, she does mention that ADHD is commonly associated with other mental health disorders, not always, but commonly. Things like bi-polar disorder, anxiety disorders, depression disorders, and substance use disorders are things that are most common that go along with ADHD. Cutting is another thing. It's often seen in some personality disorders. It's not a common manifestation that's been studied, that's shown to be associated with ADHD.

**Ted:** The mothers, who are portrayed in this piece, are rather interesting. Cynthia's character, Mama, represents every mom and I'm always moved by how far she and her husband are going to find a solution to their child's situation. I am curious about how parents deal with this and how you deal with parents. Is it always complicated for the parent? Are there any parents who are able to just role with the punches? It really feels exhausting.

**Dr. Adler:** Well, it's hard. It's hard to medicate your child. But it is also hard if your child is very symptomatic and is not doing well, to not medicate your child. The decision is never come too lightly. As in all fields of medicine, we treat diagnosis, we don't just treat symptoms. That's the first step. The second step is really trying to find the right fit. Medication is not always the first step. Medications do have profound effects on ADHD. They're not curative, but the magnitude of symptom reduction that we see in a child with ADHD is in the medication process, per se. Just looking at symptomatic improvement is really substantial. Now that doesn't mean that the first medication, if it is chosen appropriately, will always work. You also have to monitor the side-effects. Mostly, the side-effects can be managed if they occur. It's important to really talk about it with your doctor. Appetite suppression is the most common thing that you'll see, but that can often

be somewhat easy to get around by eating well at the beginning of the day and the end of the day. Growth suppression is a controversial area. Certain growth has to be monitored in kids with ADHD taking medications, but there's also some data that kids with ADHD grow erratically as well as have a different growth pattern than kids without ADHD. You have to be careful not to assume that it's a medication effect if you're just taking a snapshot, rather than a movie of things over the course of time.

**Ted:** I want to talk about the end of the play. The mom says "I'm done. What if I just focused on my child and give him attention. If this condition is called attention-deficit disorder, I'll just give him the attention that he needs." What about that ending?

**Dr. Adler:** It's hard to say. We unfortunately live in a world where you can't just do what you want to do. We have to get up, get our kids out of bed, and put them to bed at night which can be complicated after a full day of going to work. So for an adult with ADHD, it's hard to just not do anything with this, because they have the rest of life to deal with. For a child with ADHD, having an individually based program to give them enough attention may not help them function in the world as it is. We want to encourage the strengths of a child with ADHD, you don't want to just look at the things that are wrong, you want to look at the things that are wonderful about the kids and it's important not to lose track of that.

**Ted:** Alright, it's your turn to ask questions. Allison's going walk down this side of the aisle then come up this side, so if you have any questions raise your hand.

**Audience Question:** I heard and read a lot about ADHD, but not cutting. Does that relate to gender? And also how does that relate to bulimia and anorexia?

**Dr. Adler:** Well, this is not my area of expertise, but there is some association with eating disorders and cutting and also, some forms of personality issues. Again it's not my area of expertise.

**Q:** Thank you for all of your wonderful insight both of you. Can you talk a little bit more about the relationship between ADHD and the oppositional-defiant behavior?

**Ted:** What is that?

**Dr. Adler:** Oppositional-defiant behavior is a more severe form of defiance, where kids can not follow routines and are oppositional in terms of making vocal explosions or a variety of different things. That differs from what we term "conduct-disorder," which is a different manifestation. It's important that when there is oppositional-defiant disorder, to identify it and bring it under the treatment umbrella, because that kind of defiance invites negative outcomes.

**Q:** Could you tell me about any connection there might be between OCD and ADHD? And the second question is, do you know anything about this "Spect" scan that they do on brain?

**Dr. Adler:** Good questions. OCD is one of the things that is associated with ADHD. You want to be careful about the diagnoses you have and the things that you treat based on a formal diagnosis. So, yes, it's one of the anxiety disorders that seem to travel with ADHD. Spect scans are a research tool. I know that some practitioners recommend doing them. If we had a test at the individual patient level, to be able to make this diagnosis and monitor treatment, Lord knows I'd do it, but we're not at the individual patient level yet. Remember the brain, as they pointed out in the play, is a complex organ. You can't really take a piece of it and study it. At this point in time in brain imaging, we are at a level of being able to identify differences at the group level, meaning that we have a sample of adults with ADHD and a sample of adults without it. We can pick out differences in the specific areas of the brains, specifically the pre-frontal cortex. We can't do that with individual patients yet. Hopefully we can someday soon.

**Ted:** Is the research being done in that regard right now? Is it a matter of funding? Why hasn't that progressed?

**Dr. Adler:** I think it's a combination of things. Some studies have found differences in functional imaging when the brain is paying attention to different tasks. You know, I think there is a lot of work going on in this area, but we're just not there yet.

**Q:** They mentioned during the play that taking medications can cause tics. I'm wondering how that works. The doctor mentioned something about how when a person with ADHD tries to concentrate, they are less successful. I'm wondering why that is.

**Dr. Adler:** Again, two good questions. Tics travel with ADHD commonly. In addition, the medications can occasionally cause tics. So you have to be clear if it was something originally present or if the individual had a predilection for developing a tic and the medication brought it out, or if it's something just medication induced. Tics are not that common with medications for ADHD. However, the stimulant type medicines can cause tics. It's probably not all that common, but again they do happen. With careful use, many individuals who actually have tics can take the stimulant medicines. They don't always get worse from it, but again, it has to be monitored. And your second question related to activation in areas of the brain or lack of activation/concentration. We think the areas of the brain that are involved with ADHD are those that are related to executive control: Attention; working memory; keeping things in mind. And the pre-frontal cortex, below the front of the brain, is the area of the brain that's commonly involved.

**Ted:** Dr. Adler, with your own patients, without betraying anybody's confidentiality, what's the best you hope for a patient? What do you hope for when you are treating someone?

**Dr. Adler:** First you want to establish target symptoms. You need to establish what things are causing the greatest difficulty for the patient. I have an executive with ADHD and the thing that brought him in to be treated was he couldn't play with his kids. He would come home from work and the kids would want to play board games with him and

he got bored and couldn't do it. And it was really affecting the quality of his life, in terms of interactions with his kids and all of those things we get to do when dealing with young children. He didn't work as late when he was treated; he had improved quality of interaction with his children. But it also meant that I couldn't just target treatment during the day. For adults, they tend to look for treatment more throughout the day. Whereas in the play, they were talking about symptomatic improvement during the school day for kids, as kids get older they get a lot of homework. So, optimal outcome is a really significant reduction of symptoms and especially the symptoms that are causing the greatest difficulty for the individual.

**Q:** In the play the father suggests that the symptoms can pass. Are there any studies that show that people with severe manifestations of this disorder can outgrow them?

**Ted:** Can you outgrow it?

**Dr. Adler:** That's a great question. Can you outgrow it? And it's even a greater question because you used the word severe. We don't have a lot of great data on following kids longitudinally with the disorder into adulthood. It used to be felt in the 1970s and 1980s, it sort of went away in childhood, but that's not that case most of the time. The play mentioned that about 1 in 3 kids with ADHD go on into adulthood with ADHD, the studies that we have show about probably 1 in 3 get better. We know a little about the people that persist because the individuals who get better often don't come to our attention, we don't know as much about them. They would be a great group to study to try and identify what it is about them that led their condition to clear. We know that the brain continues to mature; the frontal lobes mature, probably into your early 20s. The answer is "we think so", but we don't have the hardest data there yet.

**Q:** I'm going to get back to the play, in one scene the parents have a fight about the genetic line, whose family-side it's coming from. If you see it genetically, is it more from the mother or father, or both?

**Dr. Adler:** It's hard to know. Cynthia's character mentions that there's ADHD in both family lines. One of the things that brings an adult in for an evaluation, most commonly, is that they have a child that's been recently evaluated and diagnosed with ADHD, and realized that they had the symptoms themselves in childhood.

**Q:** I was just wondering out of all the children that are diagnosed with ADHD, what percentage end up on medications and do you agree with the negative portrayal of medications in the play as being "drugs" or "narcotics?"

**Dr. Adler:** They use the term stimulants here. They talk about the methylphenidate compounds which are the Ritalin and Concerta based compounds and others. And they call amphetamines speed, which is not quite a correct diagnosis. Methamphetamine, which is speed, is an amphetamine, but it's not something you would ever prescribe for ADHD. The stimulant medicines are what we call technically schedule-two compounds, meaning that you actually have to have the actual piece of paper to get the prescription,

because if you took high doses of them, theoretically, it could get you high. There's not a lot of data with the longer acting versions of medications that they actually do that for people with ADHD. There's not a lot of data that people with ADHD themselves tend to self-medicate and take very high doses. But certainly, that's the reason they are schedule-two compounds, they have to be monitored. You have to see an actual doctor to get the prescription. To answer your question differently, do I think that medications can play a significant role in treating someone with ADHD? I do. If I didn't, I wouldn't prescribe them.

**Ted:** Isn't everybody nowadays a little ADD? I mean, do we have any choice, given that we are bombarded with information every day? Aren't we in a culture now that just consumes our attention and we're pulled in a number of directions?

**Dr. Adler:** Again, there's one thing to have attention-based symptoms, especially if you are over-loaded with information. It's another thing to have a disorder. Those are very different things. And even with individuals with ADHD, when you work with them you try to impact on them that attention is very variable. Everybody has good and bad days. If we don't sleep well, then we're not going to pay attention well. If there's a major stress in your life, it's going to affect how you pay attention. Either you have ADHD or you don't. If you have ADHD, those things will bring the symptoms forward.

**Q:** Do you feel that you have more male patients than female patients? And also, do you find that they have a higher IQ?

**Ted:** That's a very interesting question. Do you do IQ testing?

**Dr. Adler:** Those are two great questions, getting a lot of double-headers today.

**Ted:** We have a smart audience.

**Dr. Adler:** Let's talk about the gender issues first. It sort of depends on whether or not you look at diagnoses that are within the doctor's office or diagnoses that are in the community. If you look at the studies that go out into the community, you'll find a little bit different rates based on gender. But what we know is that probably it's about 2:1 boys to girls in childhood and probably about fairly even between gender in adults; which means that more women are coming in later in life to be diagnosed, in part, because they have a greater burden of the symptoms and their diagnosis was missed in childhood. As we understand more about ADHD, that's probably going to change. In terms of high IQ, IQ is not predictive of success in life. Some individuals with ADHD have very high IQs. They can be very strong verbally; they can have great abilities to succeed in certain aspects of their lives. IQ, per se, doesn't answer that question about capacity or potential. To answer it directly there are some individuals, actually because of the way we measure IQ, which, in part, is timed, and individuals with ADHD commonly have trouble with time-management and information processing. Usually, it shows lower than what we think it is because they can't finish things on time and there are a few more elements to that.

**Ted:** I'm curious, it was just published that our new president has the IQ of 125. Is that considered a high IQ?

**Dr. Adler:** Well, the average IQ is 100, so go from there. But again, you can't correlate where you get in life based upon your IQ.

**Q:** What's the relationship between ADHD and diet, exercise, vitamins supplements and that sort of thing? Has there been much research?

**Ted:** That comes up in the New Mexico scene.

**Dr. Adler:** I guess complimentary therapies would be a broader term to kind of discuss diet, nutrition, exercise, yoga. Let me first answer your question specifically on diet. There are some formal studies where, actually, sugar is commonly brought up, in terms of high-sugar diets causing kids to have ADHD. They took the ADHD kids and fed them high-sugar and low-sugar diets and it had absolutely no effect on behavior. It doesn't really hold up. Does that mean that kids and adults with ADHD should eat a healthy diet? Sure. That can be really important and I recommend that for everyone. On the other hand, a high-sugar diet is not the cause of it. In terms of the complimentary therapies, yoga is sometimes found to be helpful; if patients can do it, great; if you can meditate and focus on it, great.

**Ted:** Dr. Adler, if any of us were to encounter someone in our family, or a friend or neighbor we perceive to have this condition, what resources would you recommend?

**Dr. Adler:** Well, I think understanding the disorder and being an informed consumer is the best thing you can do. There's lots of good information on the web. There's lots of bad information on the web. So I would visit, the CHADD website: Children and Adults with ADD. There's the Adult Attention Deficit Disorder Association (ADDA). We have a website at NYU Medical Center. So, there's a lot of information out there that you can find. I think the take-home point I want to make is that there is good help out there. And for individuals with ADHD, there's a risk if you don't do something about it, if it's really impairing the individual. And again we don't just treat the symptoms we treat impairments. And if this disorder's causing impairments, there are really good therapies out there. Medication and also some of the psycho-social treatments can also be really quite helpful.

Ted: I want to take this opportunity to thank Dr. Lenard Adler for joining us today. And we thank you for coming to the Roundabout Theatre Company. Our next lecture is on April 18th, for *The Philanthropist*, and we hope to see you then.