

Childhood ADHD: Not just bad behaviour
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Looking out the window during a lecture, “Gerry” daydreams about his videogames, possibly the only thing that can hold his attention more than a minute or two. He fidgets in his seat as the instructor’s voice shifts up a notch. As he emerges from the daydream, he realizes he has no understanding of what the teacher is talking about. He can't concentrate at all. He can barely repeat the question to himself as it fades fast. Gerry has attention-deficit hyperactivity disorder (ADHD).

ADHD is not a difficulty receiving or getting attention from others, but a difficulty paying attention to things going around the person. It is troublesome because it includes problems sitting still, a much higher level of activity than usual, difficulties understanding and following through on instructions, and very short attention span.

One of the most commonly asked questions about ADHD is: Why do so many children have it? Rates vary between two and ten percent of boys, with about half that number of girls. So, in any classroom of 30 children, anywhere between one and three kids in the class are showing symptoms of ADHD. It might seem like a lot more children are diagnosed with ADHD than before, but that's because there's more known about it, so it can be diagnosed more accurately. While it is normal for children to be distractible and restless, a mental health professional can determine whether your child meets the increased levels of restlessness and distractibility for diagnosis.

Research on ADHD has shown that there is not enough of a chemical in the brain called dopamine. This chemical is one of many responsible for transmission of information in the brain. Dopamine is involved in focussing for a long enough time to remember information given in the last 30 seconds or so. This time-frame is extremely important for remembering what has just been said, such as information conveyed during a lecture, instructions from a supervisor on the job, or reminders from parents to get the chores done. As a result, paying attention is easier for people who do not have ADHD.

But there are things that children with ADHD do better. These include things that have built in distractions and immediate feedback, such as videogames. These seem to be performed as well as, in some cases better, by those with ADHD.

A new type of therapy is evolving that capitalizes on this sensitivity to immediate feedback provided by computers and videogames. This new therapy is called Neurofeedback. In one of these Neurofeedback programs, children with ADHD are given control over a computer image such as a mouse which does pole-vaults! But the only way to make the mouse pole-vault is for the child to focus and sit still. By doing this, the brainwaves generated by focussing and sitting still trigger the computer-mouse to pole-vault successfully. And this can make the child feel successful, too! Although readers can get more information about successful cases of Neurofeedback on the Internet, properly controlled studies have not yet been done.

More conventional therapies include medications called stimulants (for example, ritalin and dexedrine). These drugs seem to help those with ADHD to settle their hyperactivity and trouble paying attention. This is different from how these medications

act in people without ADHD. In them, stimulants speed them up. Newer long-acting stimulants include Concerta and Adderal. Recently taken off the market in Canada, Adderal was associated with heart problems leading to death in some cases. Taking this drug off the market has troubled many parents and ADHD-advocates, but I think it is important to err on the side of safety.

It is also important to recognize the results of a large study conducted to rate the effectiveness of treatments for ADHD by the National Institute of Mental Health in 2000. Over 500 children with ADHD were broken into four groups each of which received four different treatments. The group treated with daily medication alone normalized symptoms of ADHD in 25 percent of children treated. A second group of children received only behaviour therapy and did not receive medication. Behavioural therapy – which focusses on managing behaviours through rewards and removal of privileges – significantly improved 34 percent of patients. Next is the really interesting part. Medications combined with counselling (which includes much more than behavioural therapy) raised the benefit to 56 percent of the children. The fourth group, which received a combination of behavioural therapy and medication was most successful of all, leading to a success rate of 68 percent.

This large study and many others have shown that medications do have an important and beneficial effect. This is true in spite of side-effects. The most common side-effects experienced by people on stimulants are poor sleep and less appetite. To manage these side-effects, I would recommend visiting your physician and asking questions about dosage and type of medication, alternative therapies, and methods to manage behaviour.

I also recommend melatonin, a natural sleep hormone that controls the timing of sleep. It can help manage the difficulties getting to sleep that can accompany treatment with stimulants. Studies conducted over the past decade at Children's Hospital suggest that melatonin is an effective sleep aid in children with ADHD. Melatonin can be obtained without prescription at most pharmacies. However, it is important to let your doctor know what you are taking, even the non-prescription medications.

You can also ask most health professionals regarding the possibilities of getting assistance with a behavioural program. Children with ADHD can learn to cope with the challenges but usually require a longer time to “get it”. Some children with ADHD overcome the hyperactivity - the “H” part of the of ADHD – during their teen years. As the NIMH study showed, counselling for the child and parents can also be helpful, especially when the frustration of ADHD symptoms is associated with anxiety or depression. However, many people with ADHD have a life-long struggle, sometimes including conduct problems like stealing and violence. This makes it important to “catch” ADHD and begin to treat it as early as possible.

What seems to help most is understanding the strengths of the person with this disorder. A good sense of humour, creativity, inquisitiveness, and helpfulness are often ascribed to children and youth with ADHD. These strengths will help see them through.