Moving the diagnostic goalposts: medicalising ADHD

OVER-DIAGNOSIS EPIDEMIC – Today, Rae Thomas looks at the growing prevalence of attention deficit hyperactivity disorder.

Does your five-year-old have difficulty sustaining attention? What about organising tasks or waiting her turn? How was she as a four-year-old? These are three of the 18 criteria (here's the **whole lot**) used to differentiate children with attention deficit hyperactivity disorder (ADHD).

There *are* other questions, such as how often does your child do this? Does it impact him socially or academically? Who is reporting such behaviour? These are critical diagnostic questions that can differentiate problematic and normal behaviour. But they're not always asked.

And not asking these questions results in two outcomes – the medicalisation of normal behaviour and high prevalence rates for attention deficit hyperactivity disorder.

A childhood epidemic

Childhood mental illness has been described as the **leading cause of childhood disability** in the United States. And attention deficit hyperactivity disorder is one of the most widely-cited and controversial of all disorders routinely diagnosed in childhood.

But why has there been such a **large increase in children diagnosed** with mental health problems? Are we now better able to identify problem behaviour, or are the definitions of mental health diagnoses simply getting wider?

The lack of objective tests for ADHD make it easy to change definitions of the disorder. www.shutterstock.com

Let me be clear from the outset. I'm a psychologist with over 20 years' experience working with children with very challenging behaviours and their parents in tertiary facilities. I have seen children diagnosed with attention deficit hyperactivity disorder who have truly benefited from the diagnosis, subsequent medication and psychological intervention.

But I have also seen many children with ADHD symptoms, diagnosed with the illness

and medicated to assist with behaviour management without fulfilling all the **DSM IV-TR** criteria. DSM stands for Diagnostic and Statistical Manual of Mental Disorders and is sometimes referred to as the psychiatrist's (or psychologist's) "bible". There are different versions or editions (hence the Roman numbers). The latest version is DSM IV-TR (with the TR standing for Text Revised) and DSM V is expected early next year.

I believe that attention deficit hyperactivity disorder is a real disorder; I also believe it's too frequently diagnosed and over-treated.

Diagnosing ADHD

There's no blood test, no **functional magnetic resonance imaging** (fMRI), positron emission tomography (PET) or **computed tomography** (CT) scan to diagnose attention deficit hyperactivity disorder. In fact, there is no objective test at all.

Currently, our best diagnostic tests are standardised symptom checklists (usually for parents and teachers to report about a child's behaviour) based on the diagnostic criteria in the DSM IV-TR. To make a diagnosis of childhood attention deficit hyperactivity disorder, a practitioner must be familiar with normal development; gather, collate and interpret information from several sources; and determine if the symptoms significantly impair the child's functioning.

The minimal diagnostic criteria from the current DSM are:

- a child's behavior symptoms must fulfil either six or more (out of nine) criteria for inattention (for a diagnosis of predominantly inattentive type);
- six or more (out of nine) for hyperactivity-impulsivity (for predominantly hyperactive-impulsive type); or
- six or more in each to be diagnosed with attention deficit hyperactivity disorder combined type.

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Once the category is settled, the severity and impact questions must be asked.

Despite numerous theories and over 30 years of research, **we don't know what causes** attention deficit hyperactivity disorder. But **Australian draft guidelines** for the treat-

ment of the disorder recommend stimulant medication as front line treatment for school-aged children. Although the guidelines are still published online, last week **new clinical practice information** encouragingly recommended a combination of treatment approaches and actively called for practitioners to consider alternative explanations for child behaviours.

On average, the **worldwide prevalence of ADHD** is about 5%, but there are large variations. A **recent systematic review**, for instance, reported that prevalence rates for attention deficit hyperactivity disorder varied from 1.3% in Yemen to over 12% in Iran.

The **Australian rate is reported** to be 8% for children between six and 17 years. Variation of prevalence rates in attention deficit hyperactivity disorder can be largely attributed to (a) differing DSM versions (the definition has widened in more recent versions) and (b) how the diagnostic criteria are implemented.

ADHD symptoms are required to have been observed before the age of seven (in more than one context); have persisted for at least six months; and have clear evidence of clinical and significant impairment.

Variation in diagnoses

Analyses of pharmaceutical trials in a **2006 systematic review** revealed that only 45% of trials using the two latest DSM versions implemented the full diagnostic criteria for ADHD when admitting participants into their study. And a **small but recent study** investigated practitioner adherence to ADHD diagnostic criteria and reported that up to a fifth of practitioners diagnosed it even when all criteria were not met.

The school age cut-off may also impact a diagnosis of ADHD. Nick Chapman

The month of a child's birth compared to the school age cut-off may also impact the diagnosis of attention deficit hyperactivity disorder. **Another recent study**, of over 900,000 children aged between six and 12, reported diagnosis and treatment for ADHD was more likely for the younger children in a classroom. This suggests that younger children's behaviours are being compared to older peers in the same classroom and may be leading to inappropriate diagnoses of attention deficit hyperactivity disorder. One year makes a large difference in early childhood.

DSM V is due for release in 2013. There's a proposal to expand the criteria for attention deficit hyperactivity disorder, increasing the number of symptoms from 18 to 22. But the proposed changes will retain the current minimum cut-off of 12 symptoms (six in each subtype).

The age of symptom onset is proposed to be increased from seven to 12 years, and the wording regarding impairment is proposed to change from "clinical significant impairment" to "interfere with". The diagnostic threshold for attention deficit hyperactivity disorder will effectively be lowered.

Once a diagnosis of attention deficit hyperactivity disorder is made, children are **more likely to be prescribed** medication. But we don't know the long-term harms or

benefits of medicating or labelling children.

Prevalence rates for attention deficit hyperactivity disorder are quite high now. Some practitioners are not following the full diagnostic criteria and DSM V may lower the threshold for diagnosis.

Be prepared for the childhood mental illness epidemic (certainly with respect to ADHD) to continue.

*Have you or someone you know been over-diagnosed? To share your story, **email** the series editor.*

This is part seven of our series on over-diagnosis, click on the links below to read other articles:

Part one: Preventing over-diagnosis: how to stop harming the healthy

Part two: Over-diagnosis and breast cancer screening: a case study

Part three: The perils of pre-diseases: forgetfulness, mild cognitive impairment and pre-dementia

Part four: How genetic testing is swelling the ranks of the 'worried well'

Part five: PSA screening and prostate cancer over-diagnosis

Part six: Over-diagnosis: the view from inside primary care

Part eight: The ethics of over-diagnosis: risk and responsibility in medicine

Part nine: Ending over-diagnosis: how to help without harming