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NEWS

Drug treatment reduces criminal behaviour in adults with ADHD by about a third, study shows

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Adults with attention-deficit/hyperactivity disorder (ADHD) are less likely to commit criminal offences when taking treatment for the condition, research conducted in Sweden has shown.

Researchers from the Karolinska Institute examined data on 25 656 people with a diagnosis of ADHD taken from a variety of registries over four years (2006-9) to determine their use of prescribed stimulant or non-stimulant drugs for the condition and whether they had any criminal convictions. Adults were considered not to be taking their treatment if there was a break of at least six months between picking up prescriptions.

The results of the study, published in the *New England Journal of Medicine*, showed that men with ADHD were 32% less likely to commit criminal offences (violent, drug related crime and less serious crime) when taking drugs for the condition (adjusted hazard ratio 0.68 (95% confidence interval 0.63 to 0.73)). Taking the drugs reduced criminality in women with ADHD by 41% (adjusted hazard ratio 0.59 (0.5 to 0.7)).[1]

ADHD is characterised by inattentiveness, distractedness. and impulsivity. One of the researchers, Seena Fazel, Wellcome Trust senior research fellow in clinical science at the University of Oxford Department of Psychiatry, told a press conference in London this week that drug treatment may reduce criminality in people with ADHD as a result of dampening impulsivity and the tendency to aggressive outbursts and also by enabling them to plan and sustain themselves better in employment and education.

The worldwide prevalence of ADHD is estimated to be 5%, and in the United Kingdom it is estimated at 3.6%. Philip Asherson, professor of molecular psychiatry at the Institute of Psychiatry, King's College London, said that the effects of ADHD persisted into adulthood in around two thirds of those whose illness was diagnosed when they were children: around 15% would retain the full diagnosis, and another 50% would experience some difficulty as a result of ADHD.

But the proportion of adolescents taking drugs for ADHD declined markedly between the ages of 16 and 18 years, for which there were two main reasons, Asherson said. "One is that the services aren't there—there aren't transition services—and the other is that adolescents don't like taking medication, and that is true for other conditions not just ADHD.

"Some of them will come back seeking help later in life as young adults, and currently that can be a real problem, because they go to a primary care physician or mental health service that doesn't fully understand ADHD, so they can't get back into treatment even when they were diagnosed."

The prevalence of ADHD in prisons was at least 10%, but Asherson said that expertise and services to deal with it were lacking, so inmates with ADHD continued to be released and then to reoffend. "Most institutions don't really screen for, diagnose, or treat ADHD," he said.

The costs of criminal behaviour in terms of the criminal justice system (courts, prison and probation, and costs to the victim) and of unemployment "vastly outweigh the drug costs" of treating ADHD, Asherson said.

The UK National Institute for Health and Clinical Excellence recommends that drug treatment be used to manage ADHD in adults aged over 18, with methylphenidate as the first line treatment and atomoxetine or dexamfetamine considered in adults who are unresponsive or intolerant to methylphenidate.[2]

1 Lichtenstein P, Halldner L, Zetterqvist J, Sjölander A, Serlachius E, Fazel S, et al. Medication for attention deficit-hyperactivity disorder and criminality. *N Engl J Med* 2012:367:2006-14.

2 National Institute for Health and Clinical Excellence. Attention deficit hyperactivity disorder: diagnosis and management of ADHD in children, young people and adults. 2008. http://publications.nice.org.uk/attention-deficit-hyperactivity-disorder-cg72.

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