

Understudied and underrecognised¹

INVITED COMMENTARY ON... ATTENTION-DEFICIT HYPERACTIVITY
DISORDER IN ADULTS

Dave Coghill

That Zwi & York (2004) have opened the discussion on adult attention-deficit hyperactivity disorder (ADHD) is to be applauded. Their main conclusion is that the diagnostic validity of adult ADHD remains uncertain and that further study is needed. This is based on a review of the ADHD concept in childhood and the longitudinal studies that have followed children with ADHD into adulthood.

Possibly in a reaction to the well-meaning, but stylistically flawed, International Consensus Statement (Barkley *et al*, 2002a), they attempt to give space to all sides of the debate in their conceptual review of ADHD in children. However, a highly selective use of the literature and an inconsistent approach to critical appraisal result in a similarly flawed discussion.

Validity of the diagnosis

With respect to the evidence supporting the validity of adult ADHD, it is certainly true that this topic has been vastly underresearched. However, an implied suggestion that progress cannot be made until the 'validity' of ADHD within an adult population is somehow confirmed once and for all is concerning. Although validation is important, it would be disappointing if these comments were seized upon as a reason for not becoming involved by clinicians who are increasingly being asked to contribute to the management of ADHD. This includes requests to take over the care of patients graduating from paediatric and child and adolescent psychiatry services whose ADHD symptoms are still impairing and responding to treatment, and to assess adults whose ADHD was unrecognised and untreated during childhood. It might have been helpful to have focused more on our understanding of the continuing impairments and frequently unmet needs of these individuals.

In truth, the progress made in validating ADHD in adults may not be as gloomy as Zwi & York suggest. Robins & Guze (1970) proposed criteria to assess the evidence on the validity of psychiatric disorders. They suggested that such validity derives not from any single study but from a pattern of consistent data across a range of areas, including clinical correlates, family history, treatment response, laboratory studies, course and outcome. From the clinical perspective there are now many reports of adults presenting with the core symptoms of ADHD – hyperactivity, impulsivity and inattentiveness – although the overt hyperactivity seen in childhood seems more likely to present in adults as inner restlessness and fidgetiness (e.g. Downey *et al*, 1997). Importantly, these symptoms are associated with a wide range of impairments, including road traffic accidents, relationship difficulties and educational and occupational failure (Morrison, 1980a,b), and also with increased levels of antisocial, depressive, anxiety and substance misuse disorders (Faraone *et al*, 2000). One important caveat to these findings is that the accurate identification of ADHD symptoms and impairments in adults does seem to be dependent on the availability of information from co-informants such as parents, siblings and partners.

There are also similarities in the biological correlates of childhood ADHD and ADHD that persists into adulthood, with both demonstrating familial aggregation (Biederman *et al*, 1996) and a similar range of neuropsychological deficits (e.g. Seidman *et al*, 1998).

Are the same treatments appropriate in adults?

Adults diagnosed with ADHD appear to respond to treatment with stimulant medications in a similar way to children. Although the recent meta-analysis of randomised controlled trials of methylphenidate in adults by Faraone *et al* (2004) was based on relatively few studies, the effect size of 0.9 overall, rising to 1.3 when treatment was optimised to higher dosages, strongly suggests that stimulant medication

1. This is the second invited commentary on an article by Zwi & York (2004) that appeared in the July issue of *APT*. For the first commentary see Asherson (2004).

continues to be an effective treatment for adults with ADHD (Faraone *et al*, 2004). The specific noradrenaline reuptake inhibitor atomoxetine has also been demonstrated to be efficacious in adults with ADHD (Michelson *et al*, 2003) and has recently been approved for use in adult ADHD in both the USA and the UK.

Course and outcome

The evidence with respect to course and outcome is less straightforward. Both the DSM-IV and ICD-10 classifications imply that ADHD does not arise *de novo* in adulthood: each of these sets of criteria requires that both symptoms and impairment are present before the age of 7 years for a diagnosis to be made. This has clear implications for our understanding of the concept of adult ADHD, which may be more accurately described as 'residual ADHD' or 'ADHD continuing into adulthood'. As Zwi & York point out, these diagnostic criteria are inappropriately worded for adults – and indeed for many adolescents – and have yet to be validated in adults. It is therefore unsurprising that if only syndromic persistence is investigated (i.e. only adults meeting full diagnostic criteria are counted as un-remitted) within longitudinal cohorts, diagnostic rates appear relatively low. This method counts individuals as being in remission if they do not meet full diagnostic criteria, even if they still have a range of persisting, impairing symptoms. It may be helpful, in this situation, to consider symptomatic as well as syndromic persistence. Symptomatic persistence has been defined as the maintenance of partial diagnostic status with impairment (Faraone *et al*, 2000).

When applied to data from two further prospective longitudinal cohorts not included in the Zwi & York discussion (Biederman *et al*, 2000; Barkley *et al*, 2002b, 2004), these two definitions yield very different rates of persistence. Fischer (1997) found that on self-report measures only 3% of her sample of hyperactive boys ($n = 148$, followed up over 15 years, mean age 21 years) met criteria for a DSM-III-R diagnosis of ADHD, but that 25% had ADHD symptoms exceeding the 93rd percentile of severity of the control group. Biederman *et al* (2000) found that by age 19 years 38% of boys in their longitudinal cohort had the full ADHD diagnosis, but 72% showed persistence of at least a third of the symptoms required for diagnosis and 90% showed evidence of clinically significant impairment. Thus it seems likely that the very different rates reported for the persistence of ADHD into adulthood (4% to 80%) are dependent on not only the length of follow-up but also the definition of persistence.

Consequences of adult ADHD

If ADHD does persist into adulthood, does this matter? Even with the limited evidence currently available, the answer surely has to be yes. The impairments suffered are not trivial. They include increased risks of accidents, substance misuse, mood disorders and antisocial behaviour, poor academic and occupational histories, poor interpersonal relationships and increased risk of relationship difficulties and breakdown. These place a great burden on the individual, the family and society in general. From the child psychiatrist's point of view there are further implications. In view of the apparently high heritability of ADHD (estimated at around 0.8) it is not surprising that the parents of many ADHD patients also appear to have this disorder. What impact does a parent's ADHD have on their child? Apart from the potential effect of the impairments described above, it also seems that untreated maternal ADHD significantly reduces the effectiveness of the parenting programmes that form a mainstay of the psychosocial management of children with ADHD (Sonuga-Barke *et al*, 2002).

In conclusion, I found Zwi & York's discussion rather too cautious and overly pessimistic. While fully agreeing with their call for further research into this area, I believe it is important that we give greater recognition to the problems faced by those whose ADHD persists into adulthood and think carefully about the ways in which services can be best designed to meet their needs.

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