Neurodiversity, ADHD and work: Obstacles and opportunities



ADHD is a complex neurogenetic disorder, assessed by measurement of behavioural factors such as inattention, impulsivity and hyperactivity. Variation in these factors are a result of structural, functional and neurochemical differences in the brains of those with ADHD as compared with neurotypical people.¹

These traits can lead to problems with 'executive functions' – processes in the brain related to attentional control, impulse control, working memory, emotional regulation and more, some or all of which may be impaired in someone with ADHD.² These impairments are present from early childhood, and while some people develop coping mechanisms or organise their lives around the way they function so as to reduce their impact, they generally persist through to adulthood, leading to on average worse educational, occupational, economic, social and relationship outcomes,³ with higher rates of comorbidities such as mood, anxiety and sleep disorders.⁴

Many aspects of employment pose a particular challenge to people with ADHD; effective performance at work requires good time management, selforganisation, planning, problem solving, consistent concentration, self-motivation and the delay of gratification in the pursuit of longer-term goals and rewards, all of which are actioned through the executive functions that are impaired in people with ADHD.⁵

Unsurprisingly, a large amount of research has demonstrated problems with occupational functioning in people with ADHD relative to control groups, including lower levels of employment and lower ranking occupational status, poorer employer-rated job performance, higher dismissal rates, more sickness days per year and more days of reduced quality and quantity of work, among others.⁵⁻⁷

Greater awareness and understanding by employers is greatly needed to enable reasonable adjustments to be made, which can be very helpful for employees with ADHD in mitigating the negative effect their executive dysfunction has on their work. Dr Russel Barkley, the clinician most cited and credited for his unifying theory of ADHD,⁸ proposes recommendations for what employers should be aware of when managing employees with ADHD:⁹



Understanding that ADHD is a neurogenetic disorder, not a choice, a lifestyle or a disorder arising from social factors such as TV, video games or diet. 2.

ADHD involves a deficiency in self-regulation to achieve future goals, meaning people with ADHD may, in general, have difficulties with tasks involving self-awareness, self-restraint, working memory, emotional selfcontrol, self-motivation, planning and problem solving.

3.

Working memory problems mean people with ADHD find it hard to keep in mind information about projects, tasks, goals and rules at the same time. Instructions should be clear and written, not just verbal, and supporting employees to build reminders, to-do lists, calendars, or use any method to externalise memory and keep it in their visual field should be helpful.

4.

A key aspect of ADHD is difficulty with time management, so timers, computer-based reminders, or anything else that shows the passage of time in relation to deadlines may be helpful. 5.

By breaking down long-term projects into shorter steps with more frequent deadlines which provide opportunities for feedback, people with ADHD should find it easier to motivate themselves. Making a person with ADHD more accountable to others for the work they do, such as a friendly supervisor or more senior coworker may help them to be more productive. Despite the negative effects of executive dysfunction at work, certain traits related to ADHD may be advantageous in some occupational circumstances. Reduced inhibitory control (which theoretically results in many ADHD executive dysfunctions⁸) has been associated with more effective divergent thinking, in terms of increased frequency and originality of ideas compared with more inhibited individuals. Consistent with these findings, adults with ADHD have demonstrated superior divergent thinking to non-ADHD controls for fluency, flexibility and originality of ideas,^{10,11} in addition to higher levels of realworld creative achievement and a higher preference for idea generation rather than problem clarification and idea development.¹¹

This indicates a potential niche for people with ADHD where their propensity for 'outside the box' idea generation could be particularly valuable to organisations. Hyperfocus is another feature of ADHD only recently receiving attention in the research literature, which is a state of heightened, intense focus which may involve feelings of timelessness, failure to attend to the world, ignoring personal needs, difficulty stopping and switching tasks, feeling totally engrossed, and feeling "stuck" on small details.¹²

Counter to what the term ADHD implies, this vein of research and the finding that hyperfocus is more common in people with ADHD^{12,13} supports the emerging understanding that ADHD involves a maldistribution of attention rather than a deficit.

Activities the person with ADHD finds enjoyable may facilitate access to a hyperfocused state similar to deep-flow,¹² where attention is so focused one feels isolated and detached from the environment.¹⁴ Translated into a work context, this suggests people with ADHD may be able to more easily access a state of intense focus in their work if they find it interesting and enjoyable, resulting in high productivity.

Potential benefits of ADHD aside, there is also a strong business case for employing people with ADHD, and more broadly, neurodivergent people.

A diversity of life experiences, attitudes, ways of thinking and behaving are vital to ensure organisations don't succumb to the temptation of conformity and stability in their culture and operations – otherwise, they may find it more difficult to effectively react to external pressures and successfully manage change interventions,¹⁵ avoid groupthink and find innovative solutions to organisational problems.¹⁶

The potential advantages in ADHD, other types of neurodivergence in the workplace¹⁷ and the benefits of a neurodiverse workforce support a model where rather than merely finding reasonable adjustments to help employees with ADHD manage their work, an individualised approach which discovers and harnesses their strengths and interests is important too.

When supported in managing their differences and enabled to pursue what they are interested in and skilled at, people with ADHD are more than capable of succeeding, excelling and innovating. 1. Biederman, J. (2005). Attention-deficit/hyperactivity disorder: a selective overview. Biological psychiatry, 57(11), 1215-1220.

2. Castellanos, F. X., Sonuga-Barke, E. J., Milham, M. P., & Tannock, R. (2006). Characterizing cognition in ADHD: beyond executive dysfunction. Trends in cognitive sciences, 10(3), 117-123.

3. Klein, R. G., Mannuzza, S., Olazagasti, M. A. R., Roizen, E., Hutchison, J. A., Lashua, E. C., & Castellanos, F. X. (2012). Clinical and functional outcome of childhood attentiondeficit/hyperactivity disorder 33 years later. Archives of general psychiatry, 69(12), 1295-1303.

4. Kooij, J. S., Huss, M., Asherson, P., Akehurst, R., Beusterien, K., French, A., ... & Hodgkins, P. (2012). Distinguishing comorbidity and successful management of adult ADHD. Journal of attention disorders, 16(5_suppl), 3S-19S.

5. Barkley, R. A., & Murphy, K. R. (2010). Impairment in occupational functioning and adult ADHD: the predictive utility of executive function (EF) ratings versus EF tests. Archives of clinical neuropsychology, 25(3), 157-173.

6. De Graaf, R., Kessler, R. C., Fayyad, J., ten Have, M., Alonso, J., Angermeyer, M., ... & Haro, J. M. (2008). The prevalence and effects of adult attention-deficit/hyperactivity disorder (ADHD) on the performance of workers: results from the WHO World Mental Health Survey Initiative. Occupational and environmental medicine.

7. Gjervan, B., Torgersen, T., Nordahl, H. M., & Rasmussen, K. (2012). Functional impairment and occupational outcome in adults with ADHD. Journal of attention disorders, 16(7), 544-552.

8. Barkley, R. A. (1997). Behavioral inhibition, sustained attention, and executive functions: constructing a unifying theory of ADHD. Psychological bulletin, 121(1), 65.

9. Barkley, R. A. (2013). Recommendations for employers concerning the management of employees with ADHD. The ADHD Report, 21(2), 6-13.

10. White, H. A., & Shah, P. (2006). Uninhibited imaginations: creativity in adults with attention-deficit/hyperactivity disorder. Personality and Individual Differences, 40(6), 1121-1131.

11. White, H. A., & Shah, P. (2011). Creative style and achievement in adults with attention-deficit/hyperactivity disorder. Personality and Individual Differences, 50(5), 673-677.

12. Hupfeld, K. E., Abagis, T. R., & Shah, P. (2018). Living "in the zone": hyperfocus in adult ADHD. ADHD Attention Deficit and Hyperactivity Disorders, 1-18.

Ozel-Kizil, E. T., Kokurcan, A., Aksoy, U. M., Kanat, B. B., Sakarya, D., Bastug,
G., ... & Oncu, B. (2016). Hyperfocusing as a dimension of adult attention deficit
hyperactivity disorder. Research in developmental disabilities, 59, 351-358.

14. Moneta, G. B. (2012). On the measurement and conceptualization of flow. In Advances in flow research (pp. 23-50). Springer, New York, NY.

15. Cheung-Judge, M. Y., & Holbeche, L. (2015). Organization development: a practitioner's guide for OD and HR. Kogan Page Publishers.

16. Austin, R. D., & Pisano, G. P. (2017). Neurodiversity as a competitive advantage. Harvard Business Review, 95, 96-103.

17. Armstrong, T. (2015). The myth of the normal brain: Embracing neurodiversity. AMA journal of ethics, 17(4), 348.