

Bond University

Bond Law Review

Volume 36

Issue 2

2024

Attention Deficit Hyperactivity Disorder (ADHD): Forensic Issues

Ian Freckelton

The University of Melbourne

Monash University

Follow this and additional works at: <https://blr.scholasticahq.com/>



This work is licensed under a [Creative Commons Attribution-NonCommercial-No Derivative Works 4.0 Licence](https://creativecommons.org/licenses/by-nc-nd/4.0/).

Attention Deficit Hyperactivity Disorder (ADHD): Forensic Issues

IAN FRECKELTON AO KC*

Abstract

ADHD has long been recognised as disproportionately present in both juvenile and adult prison populations. This is so for a number of reasons, including the potential for persons with ADHD to be disinhibited, impulsive, impaired in executive functioning and chaotic in their lifestyle. A major challenge exists, though, to assist courts to understand better how ADHD may have played a role in criminal offending and thus to be relevant to evaluations of criminal culpability or even responsibility. Another issue that arises for expert assessment is how ADHD may make the experience of custodial detention especially burdensome and be relevant in this respect also for sentencing. This article considers the overall forensic context of ADHD in criminal litigation and reviews a selection of illustrative decisions from Canada, Australia, New Zealand and the United Kingdom to identify principles on the basis of which courts can make nuanced decisions that are suitably informed by expert mental health evidence about the forensic ramifications of ADHD.

I Introduction

There is a significant body of scholarly literature that has documented an association between Attention Deficit Hyperactivity Disorder (ADHD) and criminal offending, complicated by co-occurrence with other precipitants to the commission of crimes, including conduct disorder, emotional lability or dysregulation, a chaotic lifestyle, impulsivity and impaired self-control.¹ A 2021 example of such studies reviewed 656 patients with ADHD at a private psychiatric outpatient

* Barrister, Castan Chambers, Melbourne, Australia; Professor, Law Faculty, and Professorial Fellow in Psychiatry, University of Melbourne; Honorary Professor of Forensic Medicine, Monash University. Orcid ID: 0000000175096375

¹ See, eg, Gisli H Gudjonsson et al, 'A National Epidemiological Study of Offending and its Relationship with ADHD Symptoms and Associated Risk Factors' (2014) 18(1) *Journal of Attention Disorders* 3; David P Farrington, Maria M Ttofi and Jeremy W Coid, 'Development of Adolescence-Limited, Late-Onset, and Persistent Offenders from Age 8 to Age 48' (2009) 35(2) *Aggressive Behavior* 150; James D Unnever, Francis T Cullen and Travis C Pratt, 'Parental Management, ADHD, and Delinquent Involvement: Reassessing Gottfredson and Hirschi's General Theory' (2003) 20(3) *Justice Quarterly* 471. See too *R v McDonagh* [2023] EWCA Crim 1083 [29].

clinic in Oslo, Norway. It found a significantly disproportionate prevalence of lifetime criminal conviction - 11.7% among women and 24.5% among men, with convictions being associated with hyperactive-impulsive severity.² An important criminogenic issue is the extent to which the disorder, on its own or in conjunction with comorbidities, plays a role in influencing engagement in criminal conduct and therefore the extent to which it is properly to be viewed by courts as exculpating or at least mitigating moral culpability for criminally antisocial behaviour.

This article synthesises key research literature on the relationship between ADHD and the commission of criminal offences and identifies illustrative recent decisions in Canada, Australia, New Zealand and the United Kingdom on the criminal blameworthiness, and occasionally the criminal responsibility, of offenders with ADHD. It seeks to go beyond identifying the mere correlation of ADHD with the commission of criminal conduct and to explore the aspects of ADHD that can be relevant to evaluation of responsibility and culpability for criminal acts. In doing so it explores the challenges for effective expert evidence to contribute to informed decision-making by courts on the issues. Although a witness' ADHD can be relevant to defendants' credibility, especially if supported by expert evidence on the effects of the disorder on memory, narration capacity and demeanour,³ the issue of witness presentation is not an issue traversed by this article.

This article argues that improved awareness amongst legal representatives and judicial officers of the potential relevance of ADHD to evaluations of criminal responsibility, and, in particular, of criminal culpability at the time of sentencing, is necessary. For this what is required is a nuanced and expert-informed, case-specific analysis on each occasion as to whether ADHD has exercised a material effect upon the offender's conduct. The ongoing risk posed by offenders with ADHD is discussed, including in the context of the availability of effective pharmacotherapy, as well as the impact of ADHD upon the burden of the imposition of a custodial sentence.

II ADHD as a Neurodevelopmental Disorder

For a diagnosis of ADHD the 2022 edition of the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TR) and the 2022 edition of World Health Organization's International Classification of Diseases (ICD-11) require a persistent pattern of inattention and/or hyperactivity-impulsivity that interferes

² Espen Anker, Ylva Ginsberg and Trond Heir, 'Prevalence of Criminal Convictions in Norwegian Adult ADHD Outpatients and Associations with ADHD Symptom Severity and Emotional Dysregulation' (2021) 21(1) *BMC Psychiatry* e226.

³ See, eg, *Liyanage v State of Western Australia* [2021] WASCA 220 [146].

with functioning and development, a number of the symptoms having been present prior to the age of 12, and several symptoms which are present in two or more contexts.⁴ They also require that there be clear evidence that the symptoms interfere with, or reduce the quality of, social, school, or work functioning (DSM-5-TR) or academic, occupational or social function (ICD-11). The ICD-11 indicates that since the balance and specific manifestations of ADHD may vary across individuals, and may change over the course of development, the symptoms must be observable in more than one setting in order for a diagnosis of ADHD to be made. If the condition is diagnosed, the DSM-5-TR states that the condition should be specified as “mild”, “moderate” or “severe”.⁵

Jiang et al have usefully summarised that:

... patients with ADHD tend to have the response delayed in many aspects such as in the development of neurological organization and neuroplasticity, network analysis and brain development, cognitive function and motor control integration, synergies and motor primitives, retained primitive reflexes and many other areas that all impinge on that which is necessary to build models to help understanding the nature of neurodevelopmental disorders. As ADHD symptoms change over time, linguistic and locomotor maturation cannot reach social maturity at any developmental stage. ...Deficits of response inhibition in neuropsychological functions exist widely in ADHD and there are four executive neuropsychological functions affected by their effective executive function: *self-regulation of affect-motivation-arousal* (delayed gratification), *working memory*, *internalization of speech*, and *reconstitution of behavioral analysis and synthesis*.⁶

ADHD is a common neuropsychiatric disorder of childhood that is still regarded by many as remaining ‘relatively under-recognised and under-

⁴ American Psychiatric Association, Diagnostic and Statistical Manual of Mental Disorders (APA, 5th ed, 2022); World Health Organization, International Classification of Diseases: Mental, Behavioral or Neurodevelopmental Disorders (WHO, 11th ed, 2022). See Jeffery N Epstein and Richard E A Loren, ‘Changes in the Definition of ADHD in DSM-5: Subtle but Different’ (2013) 3(5) Neuropsychiatry 455; Alison S Bell, ‘A Critical Review of ADHD Diagnostic Criteria: What to Address in the DSM-V’ (2010) 15(1) Journal of Attention Disorders 3.

⁵ See Sharon Sanders et al, ‘A Review of Changes to the Attention Deficit / Hyperactivity Disorder Age of Onset Criterion Using the Checklist for Modifying Disease Definitions’ (2019) 19 BMC Psychiatry e357.

⁶ Xixi Jiang et al, ‘Association of Affected Neurocircuitry with Deficit of Response Inhibition and Delayed Gratification in Attention Deficit Hyperactivity Disorder: A Narrative Review’ (2018) 12 Frontiers in Human Neuroscience 506 (emphasis added).

diagnosed',⁷ especially in girls.⁸ However, it is the most widely studied of child and adolescent mental health disorders,⁹ although, by contrast with autism, it is not amongst the list of disability categories in Australia that is 'likely to meet the disability requirements' of the National Disability Insurance Scheme.¹⁰

The incidence of persistence of ADHD symptomatology into adulthood remains somewhat unclear, depending upon the measures used.¹¹ Sibley et al, however, using a combination of parent and self-reports from rating scales (rather than DSM or ICD criteria), found in 2017 that 60% of those with ADHD in childhood demonstrated symptom persistence into adulthood and met symptom and impairment criteria in adulthood.¹² This suggests that ADHD should be conceptualised as a lifespan disorder, at least for many, although it may be that its symptom severity declines for some in adulthood.¹³ Predictors of persistence into adulthood have been found to include severity of symptomatology, comorbid conduct disorder, and comorbid major depressive disorder.¹⁴

⁷ See Kapil Sayal et al, 'ADHD in Children and Young People: Prevalence, Care Pathways, and Service Provision' (2018) 5(2) *Lancet Psychiatry* 175. See also Ylva Ginsberg et al, 'Underdiagnosis of Attention-Deficit/Hyperactivity Disorder in Adult Patients: A Review of the Literature' (2014) 16(3) *Primary Care Companion for CNS Disorders* 23591; David M Foreman, 'Attention Deficit Hyperactivity Disorder: Legal and Ethical Aspects' (2006) 91(2) *Archives of Disease in Childhood* 192.

⁸ See, eg, Katrin Bruchmuller, Jurgen Margraf and Silvia Schneider, 'Is ADHD Diagnosed in Accord with Diagnostic Criteria? Overdiagnosis and Influence of Client Gender on Diagnosis' (2011) 80(1) *Journal of Consulting and Clinical Psychology* 128; Mira Holthe and Eva Langvik, 'The Strives, Struggles, and Successes of Women Diagnosed with ADHD as Adults' (2017) 7(1) *SAGE Open* 1.

⁹ See Adrian J Dunlop and Louise K Newman, 'ADHD and Psychostimulants – Overdiagnosis and Overprescription' (2016) 204(4) *Medical Journal of Australia* 139.

¹⁰ See NDIS, 'List A – Conditions which are Likely to Meet Disability Requirements in Section 24 of the NDIS Act' (Web Page, 2019) <<https://www.ndis.gov.au/about-us/operational-guidelines/access-ndis-operational-guideline/list-conditions-which-are-likely-meet-disability-requirements-section-24-ndis-act>>; ADHD Foundation, 'ADHD and NDIS' (Web Page) <<https://adhd.foundation.org.au/ndis>>; Saatchi and Saatchi Wellness for ADHD Australia, *Under the Radar: ADHD Report of Community Gaps and Priorities* (Web Page, 2020) <https://www.adhdaustralia.org.au/wp-content/uploads/2020/10/ADHD_Australia_National_Survey_Report-Gaps_Priorities-October-2020-FINAL.pdf>.

¹¹ Martin A Katzman, Timothy S Bilkey and Pratap R Chokka, 'Adult ADHD and Comorbid Disorders: Clinical Implications of a Dimensional Approach' (2017) 17 *BMC Psychiatry* 302; Cynthia M Hartung et al, 'DSM-5 and Other Symptom Thresholds for ADHD: Which is the Best Predictor of Impairment in College Students' (2016) 23(13) *Journal of Attention Disorders* 1637.

¹² Margaret H Sibley et al, 'Defining ADHD Symptom Persistence in Adulthood: Optimizing Sensitivity and Specificity' (2017) 58(6) *Journal of Childhood Psychology and Psychiatry* 655; Margaret H Sibley, John T Mitchell and Stephen P Becker, 'Method of Adult Diagnosis Influences Estimated Persistence of Childhood ADHD: A Systematic Review of Longitudinal Studies' (2016) 3(12) *Lancet Psychiatry* 1157.

¹³ See Atilla Turgay et al, 'Lifespan Persistence of ADHD: The Lifespan Transition and Its Application' (2012) 73(2) *Journal of Clinical Psychiatry* 192.

¹⁴ Arthur Caye et al, 'Predictors of Persistence of ADHD into Adulthood: A Systematic Review of Literature and Meta-analysis' (2016) 25(11) *European Child and Adolescent Psychiatry* 1151; cf Ronald C Kessler et al, 'Patterns and Predictors of Attention-Deficit/Hyperactivity Disorder

The prevalence of ADHD is the subject of varying estimates.¹⁵ However, it has been asserted to have a worldwide incidence of 5.2%¹⁶ and a persistence into adulthood at somewhat unclear levels, ranging between 15% and 65% of affected females and males, respectively, across ADHD categories.¹⁷ A 2016 parent survey estimated 6.1 million United States children (9.4%) to have ADHD with boys (12.9%) being more than twice as likely to be diagnosed than girls (5.6%).¹⁸ ADHD has been reported as the leading mental and behavioural condition amongst children 0-14 years of age, accounting for 12% of children classified as living with a disability in 2004¹⁹ and being present in 8.2% of children in 2020. It was the most common disorder among boys (11%).²⁰

In 2019, Deloitte recorded that:

In Australia, the prevalence of ADHD in children (under 14 years of age) was estimated to be 4.2%, and for adults (between 18 and 44 years of age) prevalence was estimated at 4.0%. Prevalence for adults over the age of 45 drops significantly to 1.8%. Prevalence is higher for males than it is for females (a ratio of 2-3:1), with ADHD highest during childhood and declining with age. Prevalence of ADHD in children aged up to 14 years is 5.8% and 2.3% in males and females respectively; meaning a total of 197,400 children (14 years and younger) have ADHD. The total social and economic costs of ADHD in 2019 were estimated to be \$20.42 billion. Per person with ADHD, the cost is \$25,071.²¹

Persistence into Adulthood: Results from the National Comorbidity Survey Replication' (2005) 57(11) *Biological Psychiatry* 1442.

- ¹⁵ United States Centre for Disease Control and Prevention, 'National Prevalence of ADHD and Treatment: Information on Children and Adolescents 2016' (Web Page) <<https://www.cdc.gov/ncbddd/adhd/features/national-prevalence-adhd-and-treatment.html>>.
- ¹⁶ Guilherme Polanczyk et al, 'The Worldwide Prevalence of ADHD: A Systematic Review and Meta-regression Analysis' (2007) 164(6) *American Journal of Psychiatry* 942. See also, Thomas J Spencer, Joseph Biederman and Eric Mick, 'Attention-Deficit/Hyperactivity Disorder: Diagnosis, Lifespan, Comorbidities, and Neurobiology' (2007) 32(6) *Journal of Pediatric Psychology* 631.
- ¹⁷ See Stephen V Faraone, Joseph Biederman and Eric Mick, 'The Age-Dependent Decline of Attention Deficit Hyperactivity Disorder: A Meta-Analysis of Follow-Up Studies' (2006) 36(2) *Psychological Medicine* 159; Guilherme Polanczyk (n 16) 942-8; Viktória Simon et al, 'Prevalence and Correlates of Adult Attention-Deficit Hyperactivity Disorder' (2009) 194(3) *British Journal of Psychiatry* 204.
- ¹⁸ Melissa L Danielson et al, 'Prevalence of Parent-Reported ADHD Diagnosis and Associated Children and Adolescents, 2016' (2018) 47(2) *Journal of Clinical Child and Adolescent Psychiatry* 199.
- ¹⁹ Australian Institute of Health and Welfare, *Children with Disabilities in Australia* (AIHW, 2004).
- ²⁰ Australian Institute of Health and Welfare, *Australia's Children* (Web Page, 2020) <<https://www.aihw.gov.au/reports/children-youth/australias-children/contents/about>> (*Australia's Children* report) 85.
- ²¹ Deloitte Access Economics, *The Social and Economic Costs of ADHD in Australia* (Web Page, 2019) <<https://www2.deloitte.com/content/dam/Deloitte/au/Documents/Economics/deloitte-au-economics-social-costs-adhd-australia-270819.pdf>> ii-iii.

However, ADHD remains controversial and ‘political’ in some quarters,²² with assertions that its prevalence is much lower than those who advocate for the use of psychostimulants contend.²³ It has also been argued that too often diagnosis takes place otherwise than by reference to formal diagnostic criteria and that a patient’s gender has a distorting effect upon diagnoses.²⁴

It has been suggested that a stronger than normal aversion toward delay in gratification in persons with ADHD interacts with a demotivating effect of hypothetical rewards, both factors promoting impulsive choice,²⁵ a key predictor in a propensity to engage in criminal conduct. A key element of ADHD is disinhibition with the ‘on the go’ drivenness seen in many children with ADHD often being replaced in adults with restlessness, difficulty relaxing and a feeling of being constantly ‘on edge’.²⁶ Associated with this is the theory that adults with ADHD live in a state of chaos, while striving (unsuccessfully) for control.²⁷

ADHD is associated with a variety of burdens, and is typically found with significant comorbid psychopathologies, including mood and anxiety disorders, substance use disorders and personality disorders. This complicates accuracy and consistency of diagnosis. The condition is viewed by many as both under-diagnosed and under-treated.²⁸

There are a number of formal tests for ADHD. Each is complicated by the incidence of comorbidities.²⁹ Conners, a psychologist at Johns Hopkins School of Medicine in the United States, developed the

²² See Arnstein Mykletun et al, ‘Causal Modelling of Variation in Clinical Practice and Long-term Outcomes of ADHD Using Norwegian Registry Data: The ADHD Controversy Project’ (2021) 11(1) *BMJ Open* e041698.

²³ See, eg, Michael W Corrigan, *Debunking ADHD: 10 Reasons to Stop Drugging Kids for Acting Like Kids* (Rowman & Littlefield, 2014); Martin Whiteley, *Speed Up and Sit Still: The Controversies of ADHD Diagnosis and Treatment* (UWA Publishing, 2019); Matthew Smith, *Hyperactive: The Controversial History of ADHD* (Reaktion Books, 2012); Luise Kazda et al, ‘Overdiagnosis of Attention Deficit/Hyperactivity Disorder in Children and Adolescents: A Systematic Scoping Review’ (2021) 4(4) *JAMA Network Open* e215335; Guifeng Xu et al, ‘Twenty Year Trends in Diagnosed Attention-Deficit/Hyperactivity Disorder Among US Children and Adolescents, 1997-2016’ (2018) 1(4) *JAMA Network Open* e181471.

²⁴ See Katrin Bruchmuller, Jürgen Hargraf and Silvia Schneider, ‘Is ADHD Diagnosed in Accord with Diagnostic Criteria? Overdiagnosis and Influence of Client Gender on Diagnosis’ (2011) 80(1) *Journal of Consulting and Criminal Psychology* 128.

²⁵ Ivo Marx et al, ‘ADHD and the Choice of Small Immediate Over Larger Delayed Rewards: A Comparative Meta-Analysis of Performance on Simple Choice-Delay and Temporal Discounting Paradigms’ (2018) 25(2) *Journal of Attention Disorders* 171.

²⁶ Shirah Vollmer, ‘AD/HD: It’s not Just in Children’ (1998) 20(8) *Family Practice Recertification* 45.

²⁷ See Michele Toner, Thomas O’Donoghue and Stephen Houghton, ‘Living in Chaos and Striving for Control: How Adults with Attention Deficit Hyperactivity Disorder Deal with their Disorder’ (2006) 53(2) *International Journal of Disability, Development and Education* 247.

²⁸ Ivo Marx et al (n 25) 171; Anne Jeavons et al, *The Adult ADHD Treatment Handbook* (Routledge, 2018) 1.

²⁹ See Nathalie Brunkhosdt-Kanaan et al, ‘The Quantified Behavioral Test – A Confirmatory Test in the Diagnostic Process of Adult ADHD?’ (2020) 11 *Frontiers in Psychiatry* 216.

‘Conners Comprehensive Behavior Rating Scale’ (with a third version published in 2008³⁰) which measures both the therapeutic efficacy of stimulant medication on hyperactive children and the severity of symptomatology.³¹ Another commonly used test is the ‘Wender Utah Rating Scale’.³² There are also self-report scales.³³ However, it has been argued that no one test is definitive for ADHD,³⁴ and that computerised tests of vigilance and sustained attention have significant limitations in terms of their ability to provide reliable diagnoses for ADHD.³⁵ This has the potential to create difficulties in the forensic context.

ADHD has been recognised as highly heterogeneous with persons satisfying the diagnostic criteria varying extensively in behaviours, the presence of other diagnoses, developmental trajectories and treatment responsiveness. This is especially so in relation to adults diagnosed with ADHD. Many adults, too, have a number of ADHD symptoms without meeting all of the DSM-5-TR or ICD-11 diagnostic criteria.³⁶ However, for both children and adults who satisfy the diagnostic criteria, most are easily distracted, have poor planning and organisational abilities and experience mood fluctuations and fits of temper:

They seek out excitement and risks in order to be better able to concentrate, they often use drugs and alcohol, and they are impulsive and restless. Furthermore, they almost always have more than one or more additional disorders, such as anxiety, depression, addiction, a sleep disorder, a bipolar

³⁰ See Ling-Yin Chang, Mei-Yeh Wang and Pei-Shan Tsai, ‘Diagnostic Accuracy of Rating Scales for Attention-Deficit/Hyperactivity Disorder: A Meta-Analysis’ (2016) 137(3) *Pediatrics* 320152749; Payal Gaba and Matthew Giordanengo, ‘Attention-Deficit/Hyperactivity Disorder: Screening and Evaluation’ (2019) 99(11) *American Family Physician* 712.

³¹ He also developed the ‘Conners Parent Rating Scale’ to obtain parental reports of child behaviour problems: see C Keith Conners et al, ‘The Revised Conners’ Parent Rating Scale (CPRS-R): Factor Structure, Reliability, and Criterion Validity’ (1998) 26(4) *Journal of Abnormal Child Psychology* 257.

³² See Thomas E Gift et al, ‘Wender Utah Rating Scale: Psychometrics, Clinical Utility and Implications Regarding the Elements of ADHD’ (2021) 135 *Journal of Psychiatric Research* 181.

³³ See, eg, Erland Jeramo Brevik et al, ‘Validity and Assessment of the Adult Attention-Deficit/Hyperactivity Disorder (ADHD) Self Report Scale (ASRS) and the Wender Utah Rating Scale (WURS) Symptom Checklists in Discriminating Between Adults With and Without ADHD’ (2020) 10(6) *Brain Behavior* e02067; Hervé M Caci, Jacques Bouchez and Franck J Bayle, ‘An Aid for Diagnosing Attention Deficit/Hyperactivity Disorder at Adulthood: Psychometric Properties of the French Versions of Two Wender Utah Rating Scales (WURS-25 and WURS-K)’ (2009) 51(3) *Comprehensive Psychiatry* 325.

³⁴ See C Thomas Gualtieri and Lynda G Johnson, ‘ADHD: Is Objective Diagnosis Possible?’ (2005) 2(11) *Psychiatry* 44, 50.

³⁵ See, eg, Lara Tucha et al, ‘Vigilance and Sustained Attention in Children and Adults with ADHD’ (2009) 12(5) *Journal of Attention Disorders* 410.

³⁶ See Russell A Barkley with Christine M Benton, *Taking Charge of Adult ADHD* (Guilford Press, 2020) 28.

disorder, or a personality disorder. All this results in problems with functioning at school, at work, and in relationships.³⁷

Experience of ADHD symptomatology can be associated with self-harming behaviour and suicidality.³⁸ Problematically, the treatment of methylphenidate (Ritalin) is contraindicated for patients who are noticeably anxious, tense or agitated³⁹ but it is unclear whether there is a causal association between methylphenidate treatment and suicide attempts.⁴⁰

Comorbidity with ADHD, especially with other neurodevelopmental disorders, is the rule rather than exception.⁴¹ Other relevant diagnoses include:

- conduct disorder;
- learning disability or intellectual disability;
- oppositional defiant disorder;
- Tourette's syndrome;
- depression;
- anxiety disorder;
- insomnia disorders;
- hypersexuality;
- sleep disorders;
- language disorder (formerly mixed receptive expressive language disorder);
- dyslexia;
- obsessive compulsive disorder;
- personality disorders;
- post-traumatic stress disorder;
- autism spectrum disorder/Asperger's disorder; and
- foetal alcohol spectrum disorders.⁴²

³⁷ JJ Sandra Kooij, *Adult ADHD: Diagnostic Assessment and Treatment* (Springer-Verlag, 3rd ed, 2013).

³⁸ See Clare Allely, 'The Association of ADHD Symptoms to Self-Harm Behaviours: A Systematic PRISMA Review' (2014) 14(1) *BMC Psychiatry* art 133.

³⁹ Corinne Vergheze and Sara Abdijadid, 'Methylphenidate' (2 January 2023) StatPearls <<https://www.ncbi.nlm.nih.gov/books/NBK482451/>>.

⁴⁰ Kenneth KC Man et al, 'Association of Risk of Suicide Attempts with Methylphenidate Treatment' (2017) 74(10) *JAMA Psychiatry* 1048; Chris J Bushe and Nicola C Savill, 'Suicide Related Events and Attention Deficit Hyperactivity Disorder Treatments in Children and Adolescents: A Meta-Analysis of Atomoxetine and Methylphenidate Comparator Clinical Trials' (2013) 7(1) *Child and Adolescent Psychiatry and Mental Health* art 19.

⁴¹ See, eg, Vicki Anderson, Elisabeth Northam and Jacquie Wrennall, *Developmental Neuropsychology: A Clinical Approach – Neurodevelopmental Disorders* (Routledge, 2nd ed, 2018).

⁴² See, eg, Ian Freckelton, 'Autism Spectrum Disorder: Forensic Issues and Challenges for Mental Health Professionals and Courts' (2013) 26(5) *Journal of Applied Research in Intellectual Disabilities* 420; Ian Freckelton, 'Obsessive Compulsive Disorder and Obsessive Compulsive Personality Disorder and the Criminal Law' (2020) 27(5) *Psychiatry, Psychology*

A particular overlap can also exist between ADHD and mild cognitive impairment.⁴³

Di Nicola et al identified the co-occurrence of ADHD in patients with bipolar disorder (15% in their sample) or major depressive disorder (7.5% in their sample).⁴⁴ They hypothesised this to be associated with maladaptive personality traits, such as neuroticism, conscientiousness and extraversion plus worse clinical characteristics, outcome and level of functioning.

A 2016 review of 18 studies (sample of 1,615 with ADHD and 3,128 without ADHD) is particularly illustrative.⁴⁵ It showed that relative to adult non-ADHD prisoners, adult prisoners with ADHD had an increased risk of comorbidity with conduct disorder (OR 2.10, 95% CI 1.19–3.70), substance use disorder (OR 2.41, 95% CI 1.22–4.79), mood/affective disorders (OR 4.50, 95% CI 2.69–7.51), anxiety disorder (OR 3.58, 95% CI 2.32–5.53) and personality disorder (OR 3.22, 95% CI 2.07–5.01).⁴⁶

In a 2017 study of 2,881 children and adolescents (aged 5–17 years) enrolled in ADHD centres, 67% met the diagnostic criteria for ADHD; 650 (34%) had only ADHD, and 1,269 (66%) had at least one comorbid psychiatric disorder (learning disorders: 56%; sleep disorders: 23%; oppositional defiant disorder: 20%; anxiety disorders: 12%).⁴⁷ Patients with ADHD of combined type and with severe impairment were more likely to present with comorbidity.

Another phenomenon that has been observed in the criminal offending context is the potential for some offenders with ADHD to self-medicate with a variety of illegal stimulants, including methylamphetamine,⁴⁸ as well as with cannabis.⁴⁹ As is set out below, this has manifested in a number of sentencing decisions where the

and Law 831; Ian Freckelton, 'Tourette's Disorder and the Criminal Law' (2019) 27(2) *Journal of Law and Medicine* 223; Ian Freckelton, 'Sentencing Offenders with Foetal Alcohol Spectrum Disorder (FASD): The Challenge of Effective Management' (2016) 23(6) *Psychiatry, Psychology and Law* 815; Ian Freckelton, 'Assessment and Evaluation of Fetal Alcohol Spectrum Disorder (FASD) and its Potential Relevance for Sentencing: A Clarion Call from Western Australia' (2017) 24(4) *Psychiatry, Psychology and Law* 485.

⁴³ See Jerrold Pollak, 'Distinguishing between ADHD and Mild Cognitive Impairment' (2012) 11(8) *Current Psychiatry* 48.

⁴⁴ Marco Di Nicola et al, 'Adult Attention-Deficit/Hyperactivity Disorder in Major Depressed and Bipolar Subjects: Role of Personality Traits and Clinical Implications' (2014) 264(5) *European Archives of Psychiatry and Clinical Neuroscience* 391.

⁴⁵ See Susan J Young et al, 'Co-Morbid Psychiatric Disorders Among Incarcerated ADHD Populations: A Meta-Analysis' (2015) 45(12) *Psychological Medicine* 2499.

⁴⁶ Ibid.

⁴⁷ Laura Reale et al, 'Comorbidity Prevalence and Treatment Outcome in Children and Adolescents with ADHD' (2017) 26(12) *European Child and Adolescent Psychiatry* 1443.

⁴⁸ See evidence at trial described in *Zhang v The Queen* [2019] NZCA 507, [55].

⁴⁹ Amanda Stueber and Carrie Cuttler, 'Self-Reported Effects of Cannabis on ADHD Symptoms, ADHD Medication Side-Effects, and ADHD-Related Executive Dysfunction' (2021) 26(6) *Journal of Attention Disorders* 942. See too psychological evidence given in *DPP v Campbell* [2023] VSC 691 [60].

interplay between offending, ADHD symptoms and substance use has been scrutinised.

Even subtle issues such as the vulnerability of persons with ADHD to sleep deprivation and consequent emotional dysregulation and instability,⁵⁰ can be relevant to poor decision-making and engagement in antisocial behaviour. It has also been postulated that the salutogenic and protective factor of a sense of coherence can contribute to antisocial behaviour and vulnerability to malign influences exerted by others.⁵¹

What emerges from these facts therefore is the complexity of the forensic task of evaluating the significance of ADHD in the context of criminal offending. It is straightforward that an expert who purports to give evidence on the issue must possess sufficient specialised knowledge to be able to assist a court.⁵² Not every mental health practitioner is an expert on the diagnosis or treatment of the disorder, though, either in adults or in children. In addition, ADHD is a condition that has been stigmatised in the therapeutic community, as well as more generally. As practitioners, Geffen and Forster, have observed:

We were taught that patients with adult attention deficit/hyperactivity disorder (ADHD) had a dubious diagnosis and were probably seeking stimulants for nefarious purposes. Doctors working in this field were viewed with suspicion. They were regarded either as gullible, permissive clinicians or, worse, unscrupulous suppliers of stimulants to drug seekers. ... The legitimacy and clinical importance of adult ADHD are still challenged in the lay press by an amalgam of conservative medical traditionalists who demand psychiatry provides the pseudo-certainty of biomarkers and an anti-medicine group concerned about their perceptions of pharmaceutical industry influence.⁵³

The stigma associated with ADHD discourages some mental health practitioners from diagnosing it. In addition, disentangling ADHD symptomatology from symptomatology attributable to other disorders is far from straightforward given the extent to which it is often but one of a range of comorbidities. However, the capacity to disaggregate is important given that, unlike conditions such as autism spectrum disorder, personality disorders and foetal alcohol spectrum disorder,

⁵⁰ See 'Individuals with High ADHD-Traits Are More Vulnerable to Insomnia' (Karolinska Institutet <<https://news.ki.se/individuals-with-high-adhd-traits-are-more-vulnerable-to-insomnia>>.

⁵¹ See Haym Dayan, Mona Khoury-Kassabri and Yehuda Pollak, 'The Link Between ADHD Symptoms and Antisocial Behavior: The Moderating Role of the Protective Factor Sense of Coherence' (2022) 12(10) *Brain Science* 1336.

⁵² See *Henry v S* [2020] ZAWCHC 12, [13] where a social worker was found not to possess sufficient expertise.

⁵³ Josh Geffen and Kieran Forster, 'Treatment of Adult ADHD: A Clinical Perspective' (2017) 8(1) *Therapeutic Advances in Psychopharmacology* 25, 25.

pharmacological intervention for ADHD, which is frequently effective, is available.⁵⁴

III ADHD Treatments

While non-pharmaceutical treatments are advocated by some for ADHD,⁵⁵ pharmacological treatments have a long history of proven efficacy for both paediatric and adult ADHD.⁵⁶ Stimulant medications, the best known of which is methylphenidate (marketed as 'Ritalin' by Ciba-Geigy Pharmaceutical Company from 1956) is generally considered to be the most effective treatment for ADHD.⁵⁷ As long ago as 2000, Wender made the claim that two-thirds of both children and adults respond positively to treatment with stimulant medications.⁵⁸ The therapeutic effect was summarised as follows by a psychiatrist in a case that went before the New Zealand Court of Appeal in 2005:

His restlessness decreased significantly. He became calmer, polite, patient and able to pay attention. His eye contact and social skills improved substantially. He was also able to pay attention to conversations, allow others to finish and was more able to respond appropriately to the content of a conversation. He reported an increased ability to understand discussions as well as less distractibility; he characterised this as there being less 'white noise' in his immediate environment. He also reported that he was better able to pay attention to how he was thinking and feeling. He went from being barely able to tolerate a 15-minute interview to easily sitting still and talking for an hour or longer.⁵⁹

A contrasting, albeit less prescribed drug used to treat ADHD is atomoxetine (marketed as Strattera), a selective norepinephrine reuptake inhibitor (SNRI), a drug developed by Eli Lilly to treat depression.⁶⁰ In the mid-1990s a seven-week, placebo-controlled, double blind, cross-over pilot study showed positive findings for its use

⁵⁴ See generally Susan J Young et al, 'The Identification and Management of ADHD Offenders within the Criminal Justice System: A Consensus Statement from the UK ADHD Network and Criminal Justice Agencies' (2011) 11(1) *BMC Psychiatry* 32.

⁵⁵ See, eg, Stephanie Moulton Sarkis, *Natural Relief for Adult ADHD* (New Harbinger Publications, 2015).

⁵⁶ Currently, there are five orthodox forms of medicine for ADHD: methylphenidate (a stimulant), Lisdexamfetamine (Vyvanse: a stimulant), dexamfetamine (Adderall: a stimulant), atomoxetine (Strattera: a selective noradrenaline reuptake inhibitor) and guanfacine (Intuniv: a non-stimulant): see National Health Service, 'Treatment: Attention Deficit Hyperactivity Disorder (ADHD)', <<https://www.nhs.uk/conditions/attention-deficit-hyperactivity-disorder-adhd/treatment/>>. See too ADHD Foundation, 'ADHD Medication and Treatments' <<https://adhd.foundation.org.au/adhd-medication-and-treatments>>.

⁵⁷ See Ole Jakob Storebo et al, 'Methylphenidate for Attention Deficit Hyperactivity Disorder (ADHD) in Children and Adolescents – Assessment of Adverse Events in Non-randomised Studies' (2018) 5(5) *Cochrane Database of Systematic Reviews* CDO12069.

⁵⁸ Paul H Wender, *ADHD: Attention-Deficit Hyperactivity Disorder in Children, Adolescents, and Adults* (Oxford University Press, 2000) 4.

⁵⁹ *R v Cumming* [2006] 2 NZLR 597; [2005] NZCA 260 [26].

⁶⁰ See *Eli Lilly Canada Inc v Apotex Inc* [2010] FC 2065.

as a treatment for patients with ADHD. An advantage of atomoxetine is that it is not a stimulant.⁶¹

In Australia, the rate of treatment for ADHD has increased dramatically over time - for instance, from 0.9 per 100 children in 1987 to 3.4 per 100 children in 1997.⁶² In 2002, over 4.2% of Australian children under the age of 18 were being prescribed stimulant medication, most of them for ADHD.⁶³ In that year, atomoxetine received Food and Drug Administration approval in the United States as an alternative medication for the condition and in 2004 by the Australian Food and Drug Administration.⁶⁴

In 2018, the United Kingdom National Institute for Health and Care Excellence (NICE) recommended by way of medication for adults diagnosed with ADHD:

Offer lisdexamfetamine or methylphenidate as first-line pharmacological treatment for adults with ADHD.

Note that this is an off-label use of lisdexamfetamine for some adults, and some preparations of methylphenidate. See NICE's information on prescribing medicines.

Consider switching to lisdexamfetamine for adults who have had a 6-week trial of methylphenidate at an adequate dose but have not derived enough benefit in terms of reduced ADHD symptoms and associated impairment.

Consider switching to methylphenidate for adults who have had a 6-week trial of lisdexamfetamine at an adequate dose but have not derived enough benefit in terms of reduced ADHD symptoms and associated impairment.

Consider dexamfetamine for adults whose ADHD symptoms are responding to lisdexamfetamine but who cannot tolerate the longer effect profile.

Offer atomoxetine to adults if:

- they cannot tolerate lisdexamfetamine or methylphenidate or

⁶¹ See Karly P Garock-Jones and Gillian M Keating, 'Atomoxetine: A Review of its Use in Attention-Deficit Hyperactivity Disorder in Children and Adolescents' (2009) 11(3) *Paediatric Drugs* 203; Yoko Nakanishi, Toyosaku Ot and Junzo Iida, 'Differential Therapeutic Effects of Atomoxetine and Methylphenidate in Childhood Attention Deficit/Hyperactivity Disorder as Measured by Near-infrared Spectroscopy' (2017) 11(1) *Child and Adolescent Psychiatry* 26.

⁶² See Mark Olfson et al, 'National Trends in the Treatment of Attention Deficit Hyperactivity Disorder' (2003) 160(6) *American Journal of Psychiatry* 1071.

⁶³ Office of Mental Health, Department of Health, Government of Western Australia, 'Attentional Deficits in Children: Diagnosis and Management of Attention Deficit Hyperactivity Disorder (ADHD) and Associated Disorders (Web Page, 2002), <<http://www.health.wa.gov.au/docreg/Education/Population/Health/MentalIllness/Attentionalproblemsinchildren.pdf>>.

⁶⁴ Therapeutic Goods Administration, 'Strattera' (Web Page), <<https://www.ebs.tga.gov.au/ebs/picmi/picmirepository.nsf/pdf?OpenAgent&id=CP-2010-PI-04269-3&d=201910201016933>>.

- their symptoms have not responded to separate 6-week trials of lisdexamfetamine and methylphenidate, having considered alternative preparations and adequate doses.⁶⁵

However, the use of stimulant medications within prison populations is controversial, principally because of the risk of abuse and diversion.⁶⁶

In 2009, Marcotte et al carried out a statistical regression analysis between crime rates and the prescription rates for stimulants used to treat ADHD in the United States between 1997 and 2004. They found that for every 1% increase in stimulant prescription there was a 0.129% decrease in violent crimes; put another way there was an inverse correlation.⁶⁷

A 2012 Swedish study enabled further insight into the issue. The researchers gathered information on a large cohort of 25,656 patients with a diagnosis of ADHD, their pharmacological treatment, and subsequent criminal convictions in Sweden between 2006 and 2009. As compared with non-medication periods, among patients receiving ADHD medication, there was a significant reduction of 32% in the criminality rate for men and 41% for women. The rate reduction remained between 17% and 46% in sensitivity analyses among men, with factors that included different types of drugs (eg, stimulant vs non-stimulant) and outcomes (eg, type of crime). The authors were prepared to go no further than to conclude that their findings raised the possibility that the use of medication reduces the risk of criminality among patients with ADHD. However, of course, prescription of a drug which has the potential for misuse and diversion, because of its amphetamine content,⁶⁸ poses its own issues, especially in the custodial context, making atomoxetine a potentially attractive treatment alternative, although it has not been extensively studied in terms of its effects on the commission of criminal offences.

IV ADHD and Criminal Offending

A variety of studies from the early phases of identification of ADHD have shown a correlation between ADHD and criminal offending. In particular, a number of reviews have attempted to explore the incidence

⁶⁵ National Institute for Health and Care Excellence, 'Attention Deficit Hyperactivity Disorder: Diagnosis and Management' (Web Page, 2018), <<https://www.nice.org.uk/guidance/ng87/resources/attention-deficit-hyperactivity-disorder-diagnosis-and-management-pdf-1837699732933>>.

⁶⁶ See, eg, Kenneth L Appelbaum, 'Attention Deficit Hyperactivity Disorder in Prison: A Treatment Protocol' (2009) 37(1) *Journal of the American Academy of Psychiatry and Law* 45-9; Patricia D Pilkinton and James C Pilkinton, 'Prescribing in Prison: Minimizing Psychotropic Drug Diversion in Correctional Practice' (2014) 20(2) *Journal of Correctional Health Care* 95.

⁶⁷ Dave E Marcotte and Sara Markowitz, *A Cure for Crime? Psycho-Pharmaceuticals and Crime Trends* (National Bureau of Economic Research, 2009).

⁶⁸ See *Rodrigo v Police* [2014] NZCA 68 [2] per Mallon J. See also *Sudol v Police* [2014] NZHC 1264.

of ADHD in prison populations. However, such findings need to be viewed with circumspection in light of questions having been raised in relation to the discriminative validity of diagnostic instruments.⁶⁹

In 2021, it was suggested that the incidence of ADHD among youth and adult offenders across police custody, prison, probation and forensic mental health settings is around one in four (25%).⁷⁰ Given the phenomenology of ADHD involving disinhibition, impulsivity, emotional dysregulation, impaired executive functioning, and chaotic lifestyle, this was not surprising but, if broadly correct, it does constitute a highly significant statistic from a criminological, penological and clinical perspective.

A 2018 systematic review and meta-analysis reviewed the incidence of ADHD in detained populations, including persons detained in psychiatric units.⁷¹ It found a five-fold increase by contrast with the general population and argued in favour of systematic screening of all prisoners upon entry to detention.

A 2017 study analysed 101 inmates in a high security all-male Portuguese correctional facility. Seventeen (16.8%) screened positive for ADHD and, interestingly, this subset of participants had higher levels of general psychopathology and psychopathic traits than others in the facility. The authors concluded that the study showed that ADHD symptoms are prevalent among offenders and ‘might have a modulating effect on the course of delinquent behavior. The cross-sectional association between ADHD symptoms and psychopathic traits reinforces the previously documented correlation between these disorders and can lead to a better understanding of the prevalent criminal behavior in ADHD patients’.⁷²

A 2015 meta-analysis of 42 studies found a fivefold increase in ADHD compared to general population incidence in youth prison populations and a tenfold increase in adult prison populations compared to the general population.⁷³

There are indications that ADHD may be a predisposing factor too for a significant incidence of recidivist commission of offences,

⁶⁹ See, eg, Nina Lindberg et al, ‘ADHD and Sleep in Homicidal Men with Antisocial Personality Disorder’ (2004) 50(1) *Neuropsychobiology* 41; Peter Johansson, Margaret Kerr and Henrik Andershed, ‘Linking Adult Psychopathy with Childhood Hyperactivity-Impulsivity-Attention Problems and Conduct Problems with Retrospective Self-Reports’ (2005) 19(1) *Journal of Personality Disorders* 94.

⁷⁰ Susan J Young and Kelly Cocallis, ‘ADHD and Offending’ (2021) 128(7) *Journal of Neural Transmission* 1009.

⁷¹ Stéphanie Baggio et al, ‘Prevalence of Attention Deficit Hyperactivity Disorder in Detention Settings: A Systematic Review and Meta-Analysis’ (2018) 9 *Frontiers in Psychiatry* 331.

⁷² Ana Machado et al, ‘ADHD Among Offenders: Prevalence and Relationship with Psychopathic Traits’ (2020) 24(14) *Journal of Attention Disorders* 2021.

⁷³ Susan J Young et al, ‘A Meta-Analysis of the Prevalence of Attention Deficit Hyperactivity Disorder in Incarcerated Populations’ (2015) 45(2) *Psychological Medicine* 247.

especially by young persons.⁷⁴ Cunial and Kebbell published a study involving interviews with 46 Australian detectives, looking to understand better the ability of police officers to identify ADHD in children whom they interviewed.⁷⁵ They found that detectives reported frequently encountering ADHD in interviewees and perceived such interviewees as being at a very significant future risk within the criminal justice system. Interestingly, assessors commonly reported viewing hyperactivity as a 'male' ADHD symptom and inattention as a 'female' ADHD symptom; it may be that this is representative of a bias that has interfered with accurate diagnoses of males who lack overt indicia of hyperactivity.⁷⁶

However, regardless of the precise incidence of ADHD amongst prison populations, it can be said with confidence that for a long time the disorder has been recognised as over-represented but under-diagnosed and under-treated, often being seen as secondary to other conditions such as substance use disorder. Young and Cocallis have argued powerfully that:

Focus on comorbid conditions however is likely to result in treatment failure if ADHD is not treated as well. Importantly, effective treatment of ADHD has been shown to improve outcomes for comorbid disorders. Greater awareness of the presence and implications of ADHD are required by the prison service. ... Effective interventions exist and have the potential to significantly decrease disruption in the prison system, increase the impact of rehabilitation programmes, reduce recidivism and ultimately change the trajectory of offenders.⁷⁷

Barkley has postulated impairment of self-control as a particular reason for engagement in criminal conduct amongst persons with ADHD:

ADHD does create a diminished capacity to deliberate upon the outcome of one's actions. ... It is clear that ADHD is disputing the cross-temporal organization of behaviour, loosening the binding of past and future consequences to the deliberations on current behaviour and lessening the capacity to bridge delays among the elements of a behavioural contingency. Given these circumstances, ... the required response of others to the poor self-control shown by those with ADHD, then, is not to eliminate the outcomes of their actions and to excuse them from personal

⁷⁴ See Colleen M Berryessa, 'Attention, Reward, and Inhibition: Symptomatic Features of ADHD and Issues for Offenders in the Criminal Justice System' (2017) 9 *ADHD Attention Deficit and Hyperactivity Disorders* 5.

⁷⁵ Kimberley J Cunial et al, 'Police Perceptions of Training in Interviewing Youth with ADHD' (2021) 22(1) *Police Practice and Research* 491. See also Kimberley J Cunial et al, 'Investigative Interviewing of Youth with ADHD – Recommendations for Detective Training' (2020) 27(5) *Psychiatry, Psychology and Law* 797.

⁷⁶ Susan J Young et al, 'Identification and Treatment of Offenders with Attention-Deficit/Hyperactivity Disorder in the Prison Population: A Practical Approach Based upon Expert Consensus' (2018) 18(1) *BMC Psychiatry* 281.

⁷⁷ Susan J Young and Kelly Cocallis, 'Attention Deficit Hyperactivity Disorder (ADHD) in the Prison System' (2019) 21 *Current Psychiatry Reports* 41, 49.

accountability, it is to temporarily tighten up those consequences, emphasizing more immediate accountability.

ADHD is therefore not an excuse but an explanation. Not a reason to dismiss outright the ultimate consequences of one's actions but a reason to increase accountability by making it more temporarily contingent with those actions. Time, not consequences, is a problem in life's behavioural contingencies for those with ADHD, so removing time, not removing outcomes, is the solution to their problem of 'diminished capacity'. It is time and the future that are nemesis [sic] of those with ADHD, not outcomes and personal responsibility. It is through no fault of their own that they find themselves in this temporal dilemma. Thus society should not absolve those with ADHD of accountability or responsibility for their actions. But it should absolve them of moral indignation of others that often accompanies this issue.⁷⁸

V Sentencing Decisions by the Courts

There has been little legal analysis of the sentencing of offenders with ADHD.⁷⁹ This section of the article builds upon a previous survey of relevant cases by the same author to provide an international insight into the way in which courts have dealt in criminal law contexts with the diagnosis of ADHD when persons have been sentenced for their offences. It reviews illustrative cases from Canada, the United Kingdom, Australia and New Zealand.

R v JC. In *R v JC*,⁸⁰ Judge Auxier of the Provincial Court of British Columbia was called upon to sentence JC who was completing grade 12. JC pleaded guilty to two counts of armed robbery on the same night when he used a knife and wore a mask. A psycho-educational assessment concluded that 'J appears to be a young man with superior intellectual and personal-social potential. At present, he is not functioning up to his capabilities. It is my opinion that this is due primarily to behavior over which he has *inadequate voluntary control*. This condition is most commonly referred to as an Attention Deficit Disorder'.⁸¹ A further expert assessment by a psychologist, Dr Mason, confirmed the diagnosis, noting a propensity on the part of JC to exhibit a combination of inattention, impulsivity and overactivity. A third assessment by a psychiatrist, Dr Black, concluded JC had ADHD.

However, an issue emerged in relation to JC's scores on the Conners Continuous Performance Task, a test that both Dr Mason and Dr Black described as scoring attention and impulsivity. Dr Mason stated that J's pattern of scores 'is reflective of significant problems

⁷⁸ Russell A Barkley, *ADHD and the Nature of Self-Control* (Guilford Press, 1997) 316-17, referred to by MacAdam J in *R v Matheson* 2001 NSSC 78 [31].

⁷⁹ Cf Ian Freckelton, 'Attention Deficit Hyperactivity Disorder (ADHD) and the Criminal Law' (2019) 26(6) *Psychiatry, Psychology and Law* 817.

⁸⁰ 1997 BCPC 19.

⁸¹ *Ibid* [6] (emphasis added).

with focused and sustained attention, impulsivity and arousal regulation' while Dr Black examined the scores and concluded that they were 'mild to moderately atypical in half the indices'.⁸² Dr Black concluded that: '... if one regards ADHD as the extreme of a continuum of certain temperamental characteristics, he might be regarded as no more than high normal'.⁸³

This led Judge Auxier to conclude that the symptoms of ADHD in JC *might* partially explain his behaviour but did not excuse it or, given its only moderate severity, diminish his responsibility for his actions. In fact, Judge Auxier decided that JC committed his offences 'for kicks and that he had no consideration of the consequences on the victims'.⁸⁴ This resulted in the imposition of a custodial sentence of 70 days plus probation for two years.

The JC decision highlights the challenges consequent upon differing expert assessments of the severity of ADHD symptomatology, the arbitrariness of classification and the complexity of assessment of the reduction in the capacity for self-control in any given individual as a result of ADHD.

R v Matheson. In *R v Matheson*,⁸⁵ MacAdam J of the Nova Scotia Supreme Court was required to sentence Reeves Matheson, a local barrister and solicitor, who pleaded guilty to five counts of dishonesty that involved theft of C\$117,000 from clients. As an aggravating matter, the offending involved breaches of trust. In mitigation, though, Matheson relied upon a supportive pre-sentence report which referred extensively to Matheson having been diagnosed with Attention Deficit Disorder when aged 12 in 1998. In addition, a physician who had treated Matheson, Dr Ahmed, gave evidence that Matheson suffered from a combined form of attention deficit disorder which she diagnosed as adult ADHD. She testified that:

The difficulties that [persons with the disorder] experience in adult life are mostly based on impulsivity and cognitive deficits. Cognitive deficits being that adults with ADHD because of the genetic component of the problem and ... these people experience this as an inherited genetic trait, impulsivity along with other ... things like inattention, distractibility, living for the moment, inability to recognize abstract reasoning and some people with higher IQs also have learning disabilities in mathematical reasons, language arts, things like that.⁸⁶

Dr Ahmed testified that Matheson combined marked inattention, very concrete thinking, inability to recognise events as they would pertain to him, spur of the moment decisions, impulsive decision-making and an

⁸² Ibid [7].

⁸³ Ibid [8].

⁸⁴ Ibid [9].

⁸⁵ 2001 NSSC 78.

⁸⁶ Ibid [28].

inability to recognise the difficulties or the fact that the difficulties existed. She emphasised the inability of persons with ADHD to put their thoughts together and to express them and therefore the fact that they 'need a lot more time', including because of their propensity to procrastinate and fear failure. She observed too that: '... one of the things that adult ADHDs of high IQ are good at is variety, novelty and thrill. This is one of the impulse acts. This is the spur of the moment. They get bored with things that are desk work, written work, things like that'.⁸⁷

MacAdam J noted that at the heart of the opinions expressed by Dr Ahmed and of the views of a psychiatrist, Dr Barkley, to which reference was made, was a plea for public awareness of the disabling effects of ADHD, notwithstanding that persons with the condition may have achieved successful careers in law, engineering or medicine. Dr Ahmed urged on the court that it consider a non-custodial disposition and drew to the attention of the court the need for Matheson to receive ongoing treatment both in the form of medication but also in continuing reinforcement of the need for him to carry out tasks and to consider the long-term implications of his decisions rather than setting aside for a tomorrow that never comes the completion of assigned tasks. She testified that this required a continuing follow through with Matheson that could only be achieved in his home as opposed to an institutional facility. Ultimately, taking all of the competing factors into account, MacAdam J sentenced Matheson to imprisonment for two years less a day to be served in the community, restitution and a variety of supervisory conditions.⁸⁸

The *Matheson* decision is an example of a case in which expert evidence from a practitioner who knew their patient well and was knowledgeable about the condition succeeded in persuading a court that the symptoms of ADHD exercised a significant influence upon the person's criminal offending and that a combination of measures, including pharmacotherapy, could be set in place to reduce the potential for recidivism. This resulted in a non-custodial disposition.

R v KM. In *R v KM*,⁸⁹ Hill J of the Ontario Supreme Court of Justice sentenced 23-year-old KM for the aggravated assault of her 31-day old biological son. KM had experienced a miscarriage when aged 17, terminated two pregnancies when 18 and then bore the victim in an unplanned pregnancy when she was aged 20. Hospital authorities had concerns from the outset that she had not bonded with her baby and in his first few weeks because KM would repeatedly become angry and

⁸⁷ Ibid.

⁸⁸ Compare the decision of Fragomeni J in *R v Ross*, 2012 ONSC 5787 where the *Matheson* judgment was cited in respect of an offender with ADHD, but a penitential sentence was nonetheless imposed.

⁸⁹ (2007) 75 WCB (2d) 451.

frustrated when she could not settle him. On the evening when she caused him serious brain injuries by shaking him, she and her husband had consumed a substantial amount of alcohol.

A psychiatrist, Dr Stewart, was called to give evidence on behalf of KM. She related KM's history of emotional and physical deprivation and explained that KM had been treated for ADHD between the ages of six and fourteen years with Ritalin. The view of Dr Stewart was that KM continued to suffer from ADHD with poor impulse control and depression. She expressed the view that the combination of ADHD and poor impulse control, immaturity, deprived background, and a difficult pregnancy 'resulted in her being totally overwhelmed by the care of the infant'.⁹⁰ However, KM told Dr Stewart that she discontinued Ritalin because she did not feel it made a significant difference to her temper, her behaviour or her impulsivity. She expressed a dislike of medication, although her mother was of the view that Ritalin made a drastic improvement to her functioning.

Dr Stewart classified KM as of normal intelligence but with a propensity not to take responsibility for her actions and to have little insight. She identified elements of conduct disorder in KM, a condition which she described as a 'kissing cousin' of ADHD, but no post-partum depression. She noted that KM failed to keep a number of appointments with her and commented that for persons who have poor impulse control and a lot of anger as a result of their ADHD, it is 'extremely common' to have problems with authority.⁹¹

There was conflicting expert evidence. A psychiatrist, Dr Woodside, was called for the Crown. He noted that: 'Although children with Attention-Deficit/Hyperactivity Disorder often exhibit hyperactive and impulsive behaviour that may be disruptive, this behaviour does not by itself violate age-appropriate societal norms and therefore does not usually meet criteria for Conduct Disorder' but he agreed that about half of those with ADHD have a conduct disorder as well.⁹² He was hesitant to embrace the diagnosis of ADHD without more collateral information and the administration of the Conners test by a psychologist. He was critical of the absence of notes by Dr Stewart that identified each of the ADHD symptoms displayed by KM and suggested that some of the reasons advanced by her as to the severity of KM's ADHD could be explained as the product of an anti-authority attitude. He argued that the Test of Memory Malinger (TOMM) should be administered to KM to evaluate whether her claims of absence of memory of what had occurred were the product of feigned memory loss.

⁹⁰ Ibid [8].

⁹¹ Ibid [9].

⁹² Ibid [13].

Ultimately Hill J accepted that KM ‘likely suffers from ADHD which, along with other evidence relating to KM’s mental makeup, provides *some context* to the offender’s limited coping abilities as a parent’.⁹³ He found her to continue to pose a risk to the community should she become pregnant again, which she was hoping to do, and observed that: ‘She is incapable of looking after a young child’.⁹⁴ He imposed a jail term of 12 months, followed by three years of probation, and commented that but for her youth at the time of her offending and ‘the modest contribution of her ADHD condition to the circumstances of the offence’, a more serious sentence would have been warranted.⁹⁵

The *KM* decision is illustrative in a number of ways. It highlights the potential for significant diagnostic difference of opinion between experts, especially where there is the likelihood of co-existent morbidities, one of which is ADHD. It is also an example of cases where evaluation of the impact of ADHD symptoms on impoverished self-control and coping ability is difficult in the context of a variety of upbringing and developmental difficulties. In short, ADHD can constitute but one of a host of precipitating factors to criminal conduct.

Kinloch v HM Advocate. In *Kinloch v HM Advocate*,⁹⁶ the Appeal Court of the Scottish High Court of Justiciary heard an appeal from a decision of the High Court in Edinburgh arising from the imposition of a period of imprisonment of two years and seven months and orders of lifelong restriction by way of a risk assessment order against Kinloch after he had pleaded guilty to a standover assault of another prisoner in his cell at Her Majesty’s Prison Edinburgh. Kinloch was aged 25 at the time of the offending and had had a difficult background. His mother had mental health problems and he was diagnosed with early oppositional defiant behaviour and then with ADHD at the age of eight. He repeatedly engaged in truancy, substance abuse and offending as part of an anti-social group. Much of his offending was violent.

Kinloch relied on a report from a consultant paediatrician, Dr Steer, who had treated him while a child and recommended he be prescribed Ritalin. However, at the time of the relevant offending he had not been diagnosed with adult ADHD and was not receiving medication. Other expert evidence was adduced, including from an ADHD expert, Dr Shah, who diagnosed Kinloch as having features of adult ADHD, as well as the secondary effects of substance misuse and antisocial traits. Dr Shah’s view was that ADHD treatment ‘may attenuate’ his risk profile by reducing his core symptoms of ADHD, potentially ameliorating his substance misuse and some aspects of his antisocial

⁹³ Ibid [30] (emphasis added).

⁹⁴ Ibid [34].

⁹⁵ Ibid [36].

⁹⁶ 2015 SLT 876; [2015] HCJAC 102.

behaviour. Another doctor, Dr Cameron, was of the view that Kinloch had adult ADHD but she was not able to opine whether he would require supervision for the rest of his life.

The sentencing judge concluded that even if Kinloch suffered from some form of treatable adult ADHD (upon which he reached no firm conclusion), this could not account for his planned and instrumental violence against the fellow prisoner - ADHD was but one of the risk factors that were relevant to his sentencing.

On appeal a focus was upon the risk assessment order (RAO) imposed at first instance, the threshold criterion for which was whether there was a likelihood that if at liberty the person would seriously endanger the lives or physical or psychological wellbeing of members of the public.⁹⁷ Ultimately the appellate court determined that Kinloch had not been proved to exhibit the requisite risk of violence so the RAO was quashed. This came at a cost in terms of his term of imprisonment immediately to be served. Kinloch was resentenced to six years' imprisonment with a custodial term of four years.

The *Kinloch* case highlights the complexity of assessment of contribution of ADHD to a complex matrix of pathological, personality and social factors affecting the aetiologies of criminal offending.

Gill v The Queen. In *Gill v The Queen*,⁹⁸ a 27-year-old man appealed from convictions for escaping police custody and avoiding arrest. He was found guilty by a New Zealand jury in Wellington. Gill was arrested when endeavouring to pick up a prescription at a chemist. He was sentenced to four months' imprisonment with conditions to apply after the expiration of his sentence that he:

- (a) attend an assessment for alcohol and drug issues, if and as directed by a probation officer;
- (b) attend and complete any counselling, treatment or programme directed by and to the satisfaction of a probation officer; and
- (c) complete any other treatment programme or counselling as directed by a probation officer.⁹⁹

Gill appealed against his conviction and sentence on the basis that he had not been allowed to adduce evidence from a forensic psychiatrist, Dr Edwards, about his ADHD. He had proposed to rely upon such evidence to explain that he ran from police as an impulsive response rather than due to an appreciation that he was being arrested for suspected criminal conduct. Judge Butler at first instance concluded that the evidence from Dr Edwards would not be substantially helpful

⁹⁷ See *Ferguson v HMA* 2014 SCCR 244 [255].

⁹⁸ [2020] NZCA 214.

⁹⁹ *Ibid* [2].

to the jury but he considered it would be useful at sentence if Gill was found guilty.

Dr Edwards' statement, which had not been admitted at trial, described how persons suffering from ADHD can be affected, including that ADHD is an executive function disorder resulting in impulsiveness, impaired attention and drug use susceptibility. However, problematically for Mr Gill, Dr Edwards made the concession in the course of her forensic report that ADHD varies between individuals in both intensity and specific symptoms. She observed that the condition can be controlled in various ways, but it is more difficult to manage when a person is fatigued or under stress. She also noted that sufferers can develop additional mental health disorders, commonly anxiety and depression, but also substance abuse problems. Dr Edwards asserted that it is common for those with ADHD to have difficulty listening to, absorbing and understanding all that is said to them – they will often pick up on a few words but not everything that is communicated.

Dr Edwards accepted that she had never met or examined Gill. However, she emphasised that she had reviewed Gill's medical records which, she said, showed that he had first been diagnosed with ADHD when he was approximately 12 years of age and responded well to medication although his adherence had been intermittent.

The New Zealand Court of Appeal upheld the trial judge's decision, holding that Dr Edwards would have been unable to assist the jury about Gill's condition at the time of the offending: 'The best she could do was to quote from medical records prepared by others, the most recent of which was written nearly two years before the events occurred. Given Dr Edwards' evidence that ADHD varies in intensity and symptoms between individuals, this significantly diminishes any value the evidence might otherwise have had'.¹⁰⁰ This resulted in the Court of Appeal agreeing that her evidence was inadmissible and therefore that Gill's conviction needed to stand. The Court of Appeal also dismissed Mr Gill's appeal against sentence on the basis that the post-release conditions were designed to deal with his risks of re-offending, including his ADHD.

The *Gill* decision is a warning that courts are often unreceptive to expert evidence that is not based upon personal observation and testing of an accused person by a mental health professional. Such counter-intuitive evidence, while theoretically admissible, especially in Canada,¹⁰¹ has major limitations in giving nuanced insights into the symptomatology of a person with ADHD and especially in relation to the impact of their symptoms on their criminal responsibility and culpability.

¹⁰⁰ Ibid [16].

¹⁰¹ See Ian Freckelton, *Expert Evidence: Law, Practice, Procedure and Advocacy* (Thomson Reuters, 7th ed, 2024).

R v Versteeg (No 2). In *R v Versteeg (No 2)*,¹⁰² Burns J of the ACT Supreme Court in Australia imposed sentence on Jake Versteeg for engaging in sexual intercourse without consent and committing an act of indecency without consent on the same victim on the same day, the maximum penalties for the offences being 12 and 7 years imprisonment respectively. The facts of the offending disclosed that first there was some consensual sexual activity between Versteeg and the victim but that he then engaged in penetrative sex with her against her will and, later, grabbed her hand and put it on his penis when that too was contrary to her wishes. Versteeg ultimately pleaded guilty to both offences.

Burns J received an expert report about Versteeg's ADHD from Dr Clout, a clinical psychologist. Dr Clout asserted that Versteeg's symptoms fell into the serious range. Hill J was persuaded that Versteeg was regularly using cannabis at the time of his offending and that his use of cannabis was associated with his ADHD.

Dr Clout asserted that Versteeg's ADHD had features such as reduced behavioural control and constraint, emotional lability, low frustration tolerance, and increased sensation-seeking behaviours. Dr Clout stated that Versteeg appeared also to have significant impairments in aspects of his executive functioning including his planning, judgement, and decision-making, and with his ability to anticipate consequences and learn from his behaviour. Versteeg also struggled to manage his impulses and his capacity to regulate and control his behaviour was under-developed.

However, Burns J was at pains to emphasise that the fact that Versteeg had ADHD with the symptoms that Dr Clout described did not reduce his moral culpability for the offences he had admitted.¹⁰³ This was because, in order to reduce his moral culpability, any mental disorder or impairment from which he suffered needed to be shown to have contributed to the commission of his offences. Burns J reasoned that this required an examination of the extent to which the mental impairment identified by Dr Clout contributed to the precise acts which constituted the offences committed by Mr Versteeg.

Mr Versteeg told Dr Clout that he was heartbroken that anyone would make the accusations against him that the victim had and he denied aspects of her account, stating that he did not feel that it was 'as big a deal as what is being made out' as he 'just pressed against her'.¹⁰⁴ Burns J found that this account, which Dr Clout accepted, greatly understated the actions in which Mr Versteeg had engaged and commented that the extent to which Dr Clout based her opinions on the

¹⁰² [2020] ACTSC 273.

¹⁰³ Ibid [21].

¹⁰⁴ Ibid [26].

facts that had been proven rather than the version Mr Versteeg provided to her was at best unclear.¹⁰⁵

The essence of Dr Clout's view was that Mr Versteeg knew that what he was doing with the victim was wrong but that his ADHD and associated cannabis use reduced his capacity to regulate and inhibit his responses. These conditions were also likely to have reduced his capacity to exercise appropriate control over his actions. However, Burns J held that the extent to which these conditions reduced Mr Versteeg's moral culpability for his offending was 'problematic'.¹⁰⁶ He noted that Dr Clout made no attempt to relate her opinions about the effect of the conditions to the facts regarding the offences:

No attempt is made to reconcile the evidence that the victim made multiple clear statements that she was not consenting to sexual intercourse, with Dr Clout's opinion that your symptoms, including an impaired capacity to control your urges, in conjunction with problematic beliefs around consent and relationships, are likely to have significantly contributed to your offending behaviour.

Similarly, no attempt has been made to reconcile the evidence that you physically flipped the victim over onto her stomach and pulled down her clothing, despite her verbal and physical attempts to make you stop, with Dr Clout's opinion that your symptoms are likely to have significantly contributed to your offending conduct.

I will also add that Dr Clout has not made any attempt to disentangle the causative effects of the symptoms of your ADHD and cannabis use on your offending behaviour from the effect of your problematic beliefs around consent and relationships.¹⁰⁷

Burns J accepted that Mr Versteeg suffered from ADHD and on the balance of probabilities that his use of cannabis was causally connected with his ADHD. He also accepted that ADHD and the use of cannabis are generally connected with a range of impairments in thought-processing, judgement, and behaviour and that at the time of Mr Versteeg's offending, it was probable that his drug use exacerbated pre-existing impairments in his cognitive processes and impulse control and that these may have contributed to some degree to his offending behaviour in the sense that they were persistent matters that affected his underlying cognitive function. However, he was not persuaded by Dr Clout's report that Mr Versteeg's ADHD and associated cannabis use

¹⁰⁵ Ibid [28].

¹⁰⁶ Ibid. Pointedly too in *R v Gulzar* [2023] EWCA Crim 630 [80] the Court of Appeal commented, '...we would accept that ADHD and ASC may be relevant to culpability in the appellant's case when a conflict arises. But despite considerable efforts both authors of the pre-sentence reports were unable to find out from the appellant why he was carrying a Rambo knife or scissors for use as a weapon in the first place. From the material before the court, we consider that the disorders justified only a modest reduction in the sentences.'

¹⁰⁷ [2020] ACTSC 273 [29]-[31].

contributed to his offending behaviour to the extent that it called for significant moderation of his moral culpability in the imposition of sentence. He concluded that Mr Versteeg's moral culpability for his offending remained high and sentenced him to 31 months' imprisonment with 8 months to be served.

The *Versteeg* decision is a salutary reminder of the need for forensic assessors in ADHD cases to be cautious of over-ready reliance upon accounts provided by the accused persons whom they are assessing. It also highlights the complexities of assessing moral culpability in the context of symptomatology which to an uncertain degree (when combined with other causative factors, such as drug use) has impaired a person's ability to control their actions.

Cooper v The Queen. In *Cooper v The Queen*,¹⁰⁸ the New South Wales Court of Criminal Appeal heard an appeal against a sentence of three and a half years' imprisonment with a non-parole period of two years for offences involving supply of a prohibited drug and failing to comply with reporting obligations. The trial judge accepted that there was a 'clear link' between Cooper's dysfunctional upbringing, his diagnosis of ADHD and his drug use, and accepted that he self-medicated with methamphetamine.¹⁰⁹ However, he was not satisfied that Cooper's ADHD had any impact on his ability to comply with his reporting requirements. The Court of Criminal Appeal affirmed that Cooper's diagnosis constituted a context for his offending but found that the sentencing judge had taken this into account in a way that resulted in 'a measure of leniency' in the sentence that was imposed on him and declined to interfere with the approach of the sentencing judge, finding it to be neither unfair nor unjust.

The decision of the New South Wales Court of Criminal Appeal in *Cooper* highlights the fact that even though ADHD might constitute a backdrop or context for criminal offending, and provide an explanation for substance dependence that is a key part of the context of such offending, it may only have a limited mitigating effect upon the sentence that is imposed.

DPP v Tulloch. In *DPP v Tulloch*,¹¹⁰ Niall JA of the Victorian Supreme Court was called upon to sentence an offender for a number of offences, including culpable driving causing death and negligently causing serious death to the 86-year-old primary victim's husband. Tulloch had stolen the motor vehicle that he was driving and at the time of driving was fatigued from a lack of sleep and was being pursued by police. He told a psychologist who prepared a report for the court that he had also been on a three-day drug binge. Another psychologist informed the court that Tulloch had been diagnosed with foetal alcohol

¹⁰⁸ [2021] NSWCCA 292.

¹⁰⁹ Ibid [62].

¹¹⁰ [2022] VSC 352.

spectrum disorder (FASD) and ADHD. However, the second psychologist told the court that Mr Tulloch had mostly average cognitive abilities apart from mild to moderate impairments of processing speed, high level attention, and complex planning and organisation which were described as consistent with the diagnoses of FASD and ADHD. The same psychologist was unable to find any connection between Tulloch's cognitive impairment and the offending behaviour per se, noting that Tulloch did not present with a disorder of impulse control.¹¹¹

It was asserted on behalf of Tulloch that there was 'almost certainly' a causal connection between Mr Tulloch's drug use and his impulsivity.¹¹² However, in sentencing Tulloch to 11 years' imprisonment with seven years and 6 months that he was obliged to serve, Niall JA was not persuaded that:

any impairment arising from the diagnoses of ADHD and FASD played any material part in the offending. The diagnoses were expressed in somewhat equivocal terms. They form part of the background to your anti-social behaviour and I take them into account. I am not persuaded that they reduce your moral culpability to any appreciable degree. Similarly, it is not suggested that any impairment would render your incarceration particularly onerous.¹¹³

The *Tulloch* sentence highlights the need for a diagnosis of ADHD to be established by admissible and persuasive expert evidence and, importantly, that it exercised a causative influence on an offender engaging in criminal conduct. Only in such circumstances is it likely to constitute a significantly mitigating factor in terms of an offender's blameworthiness. Similarly, there needs to be both rigour and specificity in terms of evidence that an offender's ADHD will constitute a significantly increased burden in serving a custodial sentence.

VI Conclusions

There is ample authority that a 'mere' diagnosis of ADHD in an offender, whether a youth or an adult, will not provide either a mental health (or other) defence or, necessarily, a significant mitigation of culpability at the time of sentencing.¹¹⁴ It depends on the nature of the symptoms experienced by the accused person, the conduct engaged in, and the extent to which the symptoms played a role in causing or at least influencing the conduct. It is clear that, in the context of imposition of sentence, establishing an earlier childhood diagnosis of ADHD will not

¹¹¹ Ibid [34].

¹¹² Ibid [35].

¹¹³ Ibid.

¹¹⁴ See, eg, *R v Versteeg (No 2)* [2020] ACTSC 273; *R v JC* 1997 BCPC 19; *R v Ferguson*, 2015 ABCA 310.

of itself constitute a significantly mitigating factor for offences committed later.¹¹⁵ For a mature age offender much will depend upon whether (and to what extent) symptoms of ADHD have persisted into adulthood and, if so, the impact of such symptoms at the time of the commission of the offence and on the risk of recidivism.

On the issue of the nexus between ADHD and offending, for example, in a case involving various drug offences, including manufacture of amphetamines, decided on appeal by the Western Australian Court of Appeal, the majority determined that the mere presence of an ADHD diagnosis was little to the point:

There was no causal link of the required kind between the applicant's attention deficit disorder and his offending behaviour. He did not commence to manufacture, consume and sell amphetamines because he suffered from the disorder, but by reason of his deliberate choice, initially taken to obtain relief from the symptoms of the disorder. There was never any suggestion that the disorder precluded him from seeking treatment and the prescription of appropriate medication. No doubt the fact that he suffered from the disorder provides some explanation for his commission of the offences, but it does not in my opinion in any way mitigate punishment.¹¹⁶

Thus, the Court of Appeal rejected the appeal.

ADHD has the potential to be relevant to criminal law proceedings in a number of ways at trial including as to fitness to stand trial¹¹⁷ and to the partial defence of diminished responsibility, in jurisdictions where the defence exists. It can also have a variety of other explanatory applications in respect of the voluntariness of police interviews, the circumstances in which a person does not give evidence, and it can also potentially explain unusual conduct in court, including apparent absence of remorse, which otherwise might be misinterpreted.¹¹⁸

However, ADHD is of most relevance during the sentencing phase of criminal proceedings, including because the disorder may result in the offender experiencing difficulties, while untreated, with self-regulation and impulsivity,¹¹⁹ including rendering the offender more prone to substance use,¹²⁰ influence by others,¹²¹ social maladjustment

¹¹⁵ See, eg, *R v BW*, 2005 SKCA 101, [12] per Bayda CJS and Vancise and Jackson JJA.

¹¹⁶ *Paparone v The Queen* (2000) 112 A Crim R 190; [2000] WASCA 127 [55].

¹¹⁷ See Australian Law Reform Commission, *Equality, Capacity and Disability in Commonwealth Laws*, ALRC DP 81 (Web Page, 2014), <<https://www.alrc.gov.au/publication/equality-capacity-and-disability-in-commonwealth-laws-dp-81/7-access-to-justice/unfitness-to-stand-trial/>>.

¹¹⁸ See, eg, in the somewhat comparable context of Asperger's disorder *Sultan v The Queen* [2008] EWCA Crim 6; *McGraddie v McGraddie* [2009] ScotCS CSOH 142.

¹¹⁹ See *R v Lochore* [2018] NZHC 2693 [25]; *Paterson v The Queen* [2021] NSWCCA 273 [23]; *Public Prosecutor v Lyon* [2013] SGDC 437 [45].

¹²⁰ See the expert evidence given in *Elphick v The Queen* [2021] ACTCA 35 [13].

¹²¹ *R v Coleman* [2021] EWCA Crim 1406 [15].

and low self-esteem,¹²² and in an offender experiencing prison life as more difficult than prisoners who do not have ADHD.¹²³ It has the potential to explain some of the context in which a person exercised problematic judgment or engaged in antisocial behaviour. A result can be that an offender with ADHD is a less suitable vehicle for general deterrence than an offender without the condition, but specific deterrence can remain a potent sentencing consideration.¹²⁴

It is vital at sentencing for expert evidence to be adduced on behalf of the offender about how it is proposed to address the risks posed by him or her in light of the symptoms of ADHD – a detailed proposed treatment plan is very helpful.¹²⁵ So too is evidence from a treating psychiatrist about the offender's adherence to a pharmacotherapy regime, the effect of the regime upon their capacity to exercise better judgement than without it, and the likelihood of their continuing to take recommended medication.

Diagnoses of ADHD can be complicated in particular factual situations,¹²⁶ and it is necessary for assessors to be able to justify how they have arrived at their conclusions by reference to the tests they have used and also the symptoms they have documented, including their assessment of the severity of the conditions, as required by DSM-5-TR. It should not be assumed that expert evidence on a plea on behalf of an accused person in the course of which ADHD is raised as a mitigating factor will be uncontradicted.¹²⁷ It follows that suitable rigour of testing, reasoning and documentation is fundamental to its commanding probative value.

ADHD will generally be found to exist in conjunction with other conditions, in particular autism spectrum disorder, anxiety and depression,¹²⁸ both in respect of young offenders and those who are adults. This has the potential to make disaggregation of the contributing elements of comorbidities difficult for forensic practitioners and also to give limited assistance to offenders, as comorbid conditions such as ADHD can persist and provide cause for judicial disquiet about the potential for recidivism.

However, two factors are relevant in this regard: some young persons diagnosed with ADHD do not continue to experience its

¹²² See, eg, *Veljanoski v The Queen* [2021] NSWCCA 255 [28].

¹²³ See generally *R v Verdins* (2007) 16 VR 269; [2007] VSCA 62; and in the ADHD context *R v Lau* [2018] NZHC 2935 [38]; *R v Palmer* [2016] NZHC 1962 [65].

¹²⁴ *DPP v Mena* [2023] ACTSC 80.

¹²⁵ See, eg, *R v Matheson* 1997 BCPC 19.

¹²⁶ See, eg, *R v JC* 1997 BCPC 19.

¹²⁷ See, eg, *R v KM* (2007) 75 WCB (2d) 451. See also the complex array of evidence in *Kinloch v HM Advocate* 2015 SLT 876; [2015] HCJAC 102.

¹²⁸ See, eg, *R v KM* (2007) 75 WCB (2d) 451; *Kinloch v HM Advocate* 2015 SLT 876; [2015] HCJAC 102.

symptoms into adulthood¹²⁹, and if an offender (of any age) is prepared to be adherent to medication to treat ADHD,¹³⁰ this may substantially reduce symptomatology and the likelihood of ongoing commission of criminal offences.

An outcome of the therapeutic efficacy of pharmacological interventions (both stimulant and non-stimulant) for ADHD is that there is considerable potential for addressing sentencing judges' concerns about repetition of offending by persons with ADHD if it can be shown that they are subject to a suitable pharmacology regime, that they are adherent to it and that they are insightful as to their need for it and its utility for abatement of their symptoms. However, the corollary is that if an offender is unwilling to be compliant with such a regime, or does not accept its utility, this can detract from the proposition that their ADHD symptoms are adequately addressed and that it is unlikely that they will reoffend.

A characteristic of ADHD can be anosognosia – the lack of awareness on the part of many with the condition that they have its symptoms. A theory in this regard is that ADHD is associated with reduced conscious perception of errors and limitations.¹³¹ This means that it is arguable that limited significance should be attributed in a forensic context to the absence of insight on the part of an offender into their symptomatology. However, if this argument is to be advanced, expert evidence based on the clinical literature will be needed, and much will then depend upon whether in the mental health expert's opinion, in spite of the offender's lack of awareness, they are likely to be adherent to the prescribed medication for their ADHD symptomatology.

Without expert evidence about the ramifications of ADHD for an offender's criminal conduct, it will generally not be accorded significant weight at sentencing.¹³² For the opinions of mental health practitioners about persons having ADHD to be considered helpful by the courts, the requisite expertise in the assessor must be established – evaluation of ADHD, especially in the context of what will usually be comorbidities, is a particular area of clinical and forensic expertise, not lightly to be undertaken by practitioners unfamiliar with either the disorder or forensic exigencies.

¹²⁹ See *Gill v The Queen* [2020] NZCA 214. See also the evidence by Dr Young in *R v Friend* [2004] EWCA Crim 2661 [25]; *R v Lau* [2018] NZHC 2935 [38].

¹³⁰ In *DPP v Batsanes & Smith* [2023] VSC 693 [68]. For example, the evidence was that the offender was diagnosed with ADHD but stopped taking Ritalin because he did not like how it made him feel.

¹³¹ See Tilmann A Klein, Markus Ullsperger and Claudia Danielmeier, 'Error Awareness and the Insula: Links to Neurological and Psychiatric Diseases' (2013) 7 *Frontiers in Human Neuroscience* 14.

¹³² See, eg, *Affleck v Police* [2017] NZHC 3220 [20].

Generally, the mental health expert should have examined the individual.¹³³ Care too needs to be taken by courts and clinicians alike not to be overly influenced by patients' self-reports,¹³⁴ or by what may not be independent accounts from relatives or carers. Critical clinical judgement needs to be exercised. If an offender has also taken illegal drugs which may have played a role in generating disinhibition or the exercise of poor judgement, even if the drugs are taken by way of self-medication, this may complicate the situation and will often tend to render a diagnosis of ADHD less valuable in mitigation.¹³⁵

A key issue is the extent to which the symptomatology of ADHD played a causative, predisposing or at least contributing role in the criminal offending.¹³⁶ An aspect of ADHD is that it can result in vulnerability to antisocial influence by others and to malign behaviours by others which in turn can generate trauma and emotional deficits in regulation.¹³⁷ Assessment of such matters is a complex exercise in *ex post facto* reconstruction where establishing the facts is important and for expert assessments not to rely only on the assertions of the offender.¹³⁸ If there is clear evidence of premeditation or planning, that will go a considerable distance toward negating or at least reducing the forensic utility of an ADHD diagnosis.¹³⁹

A subsidiary consideration at sentencing, which needs to incorporate specific expert evidence on the issue, should also be the extent to which symptomatology of ADHD may be exacerbated by the custodial environment (where accessing Ritalin may be problematic),¹⁴⁰ or may make the serving of a custodial sentence particularly burdensome,¹⁴¹ in part by reason of the person being particularly vulnerable to maltreatment by others,¹⁴² and potentially, too, less capable of engaging constructively with rehabilitative services.

If evidence of ADHD is not adduced at trial and later comes to light, there is still the potential for an appellate court to find a conviction to

¹³³ See, eg, *R v Ibrahim* [2014] EWCA Crim 121, [13].

¹³⁴ See *R v Versteeg (No 2)* [2020] ACTSC 273; see also *R v Osborne* [2004] EWCA 2661, [30]-[31].

¹³⁵ See the consumption of skunk in *R v Osborne* [2004] EWCA 2661 and of methylamphetamine in *Paparone v The Queen* (2000) 112 A Crim R 190; [2000] WASCA 127.

¹³⁶ See *Paparone v The Queen* (2000) 112 A Crim R 190; [2000] WASCA 127.

¹³⁷ See *Attorney-General v Dunning* [2022] JRC 236 [13].

¹³⁸ See *R v Versteeg (No 2)* [2020] ACTSC 273. See also *R v Osborne* [2004] EWCA 2661, [30]-[31].

¹³⁹ See, eg, *R v Osborne* [2004] EWCA 2661.

¹⁴⁰ See submissions in *DPP v Torbert* [2023] ACTSC 332 [51].

¹⁴¹ See the analysis of expert psychological evidence on the issue by Jane Dixon J in *DPP v Campbell* [2023] VSC 691 [94]. See also *R v BGW* [2023] EWCA Crim 1198 [37]; *R v Simmonds* [2023] EWCA Crim 1063.

¹⁴² *R v Verdins* (2007) 16 VR 269; [2007] VSCA 62. In *R v Tirijski* [2023] 1480, [65] it was noted in sentencing that the offender's 'time in prison has not been perfect and he has offended, seemingly as result of his behavioural effects of his ADHD and PTSD. He was placed in segregation for three months for his own protection.'

have been unsafe. Thus, in *R v Friend*,¹⁴³ the Court of Appeal of England and Wales quashed a conviction, holding that:

It is clear that the judge would not have ruled in favour of drawing any adverse inference, certainly in respect of the failure to give evidence, and we think probably also in respect of the interview or silence at the first interview in so far as he did direct the jury that they might do so. Indeed, the Crown has conceded that it would not even have invited any adverse inference as regards the failure to give evidence. Even if there had been any direction regarding an adverse inference, the judge would still have had to direct the jury with reference to the new evidence and in any event, and quite apart from these points, he would in the light of the new evidence certainly have directed the jury in quite different terms as regards any inference from silence or lies told in interviews.¹⁴⁴

As this article has illustrated, decided cases across a number of jurisdictions have demonstrated that well-reasoned and reflective expert evidence about the existence of ADHD in a person accused of significant criminal conduct, whether a child or an adult, can be highly relevant in mitigation and, occasionally, in exculpation. However, for such evidence to command judicial confidence it must be more than generally informative or contextualising. It needs to extend to providing insights not otherwise available about how the symptoms of ADHD are likely to have influenced the particular offending or to be especially onerous should a custodial sentence be imposed. This can be a challenging forensic task for assessors, requiring expertise and evaluative rigour in the context of what may be complicating collateral factors, such as comorbidities, personality issues and substance use.

¹⁴³ [2004] EWCA Crim 2661.

¹⁴⁴ *Ibid*, [30]-[31]. Cf *Dixon v The Queen* [2013] EWCA Crim 465.