

ADHD across the lifespan

RANZCP Position statement

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This Position Statement acknowledges Attention-Deficit/Hyperactivity Disorder (ADHD) as a major mental disorder and presents principles to develop a more appropriate, accessible, equitable health system that caters for the needs of people with ADHD across their lifespan.

Purpose

The Royal Australian and New Zealand College of Psychiatrists (RANZCP) has developed this Statement to outline its position on ADHD as a major mental disorder, and the necessary requirements for the provision of services for the assessment, diagnosis, treatment and management of people with ADHD throughout their lives.

Key messages

- ADHD is a high prevalence neurodevelopmental disorder, often associated with impairment that extends across the lifespan.
- ADHD frequently presents with comorbidities.
- Un-treated ADHD has significant implications for the person with the disorder, their family and community.
- Equitable access to services for people with ADHD requires system level change.
- Effective ADHD diagnosis and treatment follows expert guidelines that use contemporary scientific evidence and a holistic approach.
- Stimulant medications are medications that can be subject to abuse and diversion. Evidence based precautions must apply when prescribing these to ensure the safety of patients and community.
- Psychiatrists have a key role in delivery of ADHD services and require expert knowledge and skills in the diagnosis, treatment and ongoing management of those with ADHD.

Definition

ADHD is a clinical syndrome of pervasive inattention and/or hyperactivity and impulsivity, which is in excess of that typical for one's developmental age. It adversely affects learning, interpersonal relationships, and occupational and overall functioning, and has a mortality rate above that in the general population.[1]

ADHD's complex presentation and persisting impairments from childhood into adult life arise from its heterogenous genetic, epigenetic, and environmental aetiology.[1-7] Emotional dysregulation is a significant feature of ADHD, proposed as an additional diagnostic factor.[8-16] Anxiety is also associated with certain types of ADHD.[16]

Background

ADHD is the most common neurodevelopmental disorder, affecting 8.2% of children and 2.5% of adults in Australia, with a highly variable age of presentation.[8,17] Whilst there has been a significant increase in the recognition and diagnosis of ADHD over the last twenty years, it remains under-diagnosed and under-treated. In childhood, approximately three males are diagnosed with ADHD for every female (rising to six in clinical settings). This evens in adulthood, reflecting a combination of under-recognition and later onset in females, or remission in males.[18-22]

Untreated and un-diagnosed ADHD has significant personal, family and community costs, associated with higher rates of behavioural and conduct problems, accidents, injuries and death, school and learning difficulties, workplace difficulties, substance use disorders, and family and interpersonal conflict. In Australia, untreated ADHD has enormous economic costs to society with estimates of overall cost amounting to \$20 billion per year.[1-2, 23] The unique features of untreated ADHD often lead to significant personal and social costs, with higher mortality rates in individuals with ADHD than those without across both Australia and New Zealand.[24-28]

Despite these significant costs, ADHD remains poorly understood by healthcare services, governments, the general public and many medical professionals. Often dismissed as a behavioural problem or personality disorder, it is underdiagnosed and undertreated in public sector mental health services. This effects people who are unable to afford psychiatric care through the private sector and is compounded by lack of public sector capacity to meet the need for assessment and treatment, particularly as they transition into adult services.

In school settings, symptoms of ADHD can result in unsupported or untreated students falling behind academically in comparison to their peers and experiencing adverse social treatment by both peers and teachers.[29] There is evidence that many schools do not provide management plans or adequate support for students with ADHD. These gaps are compounded by punitive and exclusionary punishment practices.[30]

Most young people under 26 in Australia highlight work as a challenge due to their ADHD, including difficulty with listening and recalling instructions at work, speaking and listening at meetings, time management, psychological distress and managing workplace burnout.[31] Individuals with ADHD are more likely to face difficulty gaining and maintaining employment compared to neurotypical adults, especially if they received no treatment in childhood.[32-33] In the United States, college graduates with ADHD earn much less per year than their peers.[34]

Those with ADHD can reach high levels of achievement academically or professionally; however, the cognitive, socioeconomic and cultural effects of ADHD mean they are likely to encounter significant barriers and challenges across their lifespan. Remedying this requires improved services for individuals with ADHD across all healthcare and community settings.

Diagnosis, Treatment & Ongoing Care

A comprehensive assessment and management plan, collaboratively developed between a psychiatrist, individual with ADHD and/or their carer engaged in [information sharing](#), is the basis of good clinical care. This ensures continuity of care as patients move between age groups, health services and community services, whilst proactively recognising and adjusting to new psycho-social/environmental factors that may emerge throughout their lifespan. This also reduces the impact of ADHD symptomatology and other comorbidities to improve quality of life and daily functioning.

Clinical guidelines (see additional resources) provide the foundation for the provision of this assessment and treatment. Comprehensive assessment, taking a biological, psychological and social approach, with consideration of medical, interpersonal, educational and occupational needs, enables the following to be avoided:

- The under-diagnosis and treatment of specific populations

Females are a largely under-diagnosed and under-treated cohort. Those suspected of having ADHD should have their self-perceptions, social behaviours and treatment by others in school and peer groups in childhood explored. Masking and internalisation of symptoms and behaviours is common in females and social perceptions of, for example, the “chatty girl”, leads to the under-recognition of the disorder.[18-19] Culturally and linguistically diverse (CALD) populations also have complex needs and barriers to receiving a diagnosis and subsequent treatment, including a lack of general and health literacy, and cultural relevance regarding treatment programs. For Aboriginal and Torres Strait Islander and Māori peoples, system-wide recognition of the role of culture and community in the ADHD treatment process is required.

- The differential diagnosis of ADHD from other disorders with similar presentations

ADHD is commonly co-morbid with other psychiatric disorders including depression, anxiety, trauma, and bipolar affective disorder.[8] ADHD can also complicate the clinical profile and chronicity of substance use disorder.[8] It shares many symptoms with other psychiatric disorders, including trauma and severe personality disorders, but can be distinguished uniquely.[35] Understandably, it is also often associated with, or substantially shares symptoms with, other neurodevelopmental disorders, such as autism spectrum disorders and Foetal Alcohol Syndrome Disorder.[36] ADHD also has heightened risks of serious physical disorders such as obesity, asthma, diabetes, epilepsy, and sleep disorders [10, 37-40] Associated symptoms are to be explored when conducting a comprehensive assessment, to expose and treat comorbidities that are likely to lead to a more severe presentation of ADHD if unrecognised and untreated.[8]

The Role of the Psychiatrist

Ambiguity over credentials to provide ADHD care can reduce access to care, silo services, and deprive professionals of autonomy. Psychiatrists' unique and comprehensive understanding of the bio-psycho-social assessment and treatment of ADHD, puts them at the centre of ADHD services and in a position of clinical leadership within a multidisciplinary team. In the presence of complex comorbidities, the expertise of other relevant medical specialists may be required.

The psychiatrist's role is also central to the sound governance of services, providing review, direction and support where required, and promoting safe and rigorous practice. The psychiatrist has a key role in coordinating the appropriate prescription of medications such as stimulants, which play a key part (supported by psychological and educational treatments) of effective treatment for ADHD. In the presence or suspected presence of active SUD, the expertise of an addiction specialist is required to determine the efficacy of pharmacological treatments and to inform safety considerations and risk mitigating strategies.

Noting that stimulant medications are subject to abuse and diversion, the role of the psychiatrist also involves ensuring that universal precautions are routinely applied when prescribing stimulants.[41] In particular, a patient background of addictive behaviour suggests extra prescribing caution e.g. a more prolonged assessment phase, a preference for long acting formulations, staged supply and close follow-up supervision. In this scenario, the use of third-party informants and collateral information becomes even more useful.

Education

As ADHD is a major mental disorder that causes impairments in several domains of life across the lifespan, its diagnosis, comorbidities and treatment should form part of the knowledge and experience base. Medical professionals engaged in provision

of ADHD treatment, including all psychiatrists, should receive education and training in the aetiology, assessment, treatment and ongoing care of ADHD across the lifespan to a breadth and depth appropriate to their professional care. Developing the capacity of care providers to recognise and treat ADHD, outside of medical professions such as psychiatrists and paediatricians, would further support ADHD recognition and treatment.

Systemic Change

Across various settings, systemic change is required to equitably provide ADHD assessment and treatment, alongside the provision of appropriate social supports. Services should be co-produced and governed by experts in mental health, with patients, family (Whānau), carers and clinicians working in equal partnership. Shared care arrangements with a range of healthcare professionals, support services and [carers](#), support ADHD treatment by broadening the understanding of the patient's personal, educational, occupational and social functioning at key interventions across their lifespan.

This model of co-production to assess and treat ADHD should extend into forensic systems, where under-diagnosis and under-treatment is high.[42] Youths with ADHD are more than twice as likely to be convicted of a crime and three times more likely to be incarcerated.[43] Estimates put the prevalence of ADHD in prison populations at 20.5%, close to ten times that in the general population.[44]

People with ADHD would also benefit from the better articulation of child health services, child and adolescent mental health services (CAMHS) and adult mental health services. Multidisciplinary ADHD teams including paediatrics, child and adolescent psychiatrists, and adult psychiatrists can ensure that psychiatric services are age appropriate across one's lifespan. If treatment is necessary, arrangements for a smooth transition to adult services are required to avoid clinical silos.

Due to the common misunderstanding and stigma related to ADHD and its treatment, those undertaking assessment and treatment of individuals with ADHD are exposed to a risk of review by regulatory bodies. As a matter of integrity and competence, reviews should be informed by expertise in ADHD across the lifespan and its various settings.

Recommendations

The RANZCP recommends that:

- Medical professionals engaged in provision of ADHD treatment, including psychiatrists, are trained in the aetiology, assessment, treatment and ongoing

care of ADHD across the lifespan to a breadth and depth appropriate to their provision of care.

- Public mental health services develop and provide ongoing services for the assessment, monitoring and treatment of those with ADHD to ensure equitable access to health care.
- ADHD service provision is developed in ways which make best use of specialist resources in shared care models with primary health care providers.
- Health Services undertake development of, and provide ongoing monitoring and support for, Primary Health Care assessment, treatment and ongoing care within shared care arrangements.
- Specialist psychiatrists with ADHD expertise provide clinical leadership, direction, governance and review for ADHD services in government and non-government health services.
- Regulatory bodies utilise professional opinions from experts in ADHD when a review of a psychiatric practice related to ADHD is considered.

Additional Resources

- Australian ADHD Professionals Association (AADPA) - [Australian Evidence-Based Guideline Clinical Guideline for ADHD](#) (2022)
- Canadian ADHD Resource Alliance (CADDRA) - [Canadian ADHD Practice Guidelines](#) (2018)
- National Institute of Clinical Excellence (NICE) - [Diagnosis and management of ADHD in children, young people and adults \(Clinical Guideline 72\)](#) (2018)
- British Association for Psychopharmacology (BAP) – Update on the [Evidence-based guidelines for the pharmacological management of attention deficit hyperactivity disorder](#) (2014)

Responsible committee: ADHD Network Committee

References

1. Kooij JJS et al. Updated European Consensus Statement on diagnosis and treatment of adult ADHD. *Eur Psychiatry*. 2019 Feb;56:14-34.
2. Katzman MA et al. Adult ADHD and Comorbid Disorders: Clinical Implications of Dimensional Approach. *BMC Psychiatry*. 2017 Aug;17(302).
3. Brikell I et al. Insights into attention-deficit/hyperactivity disorder from recent genetic studies. *Psychological Medicine*. 2021; 51(13):2274-2286.
4. Demontis D et al. Discovery of the first genome-wide significant risk loci for attention deficit/hyperactivity disorder. *Nat Genet*. 2019 Jan;51(1):63-75.

5. Yadav SK et al. Genetic variations influence brain changes in patients with attention-deficit hyperactivity disorder. *Transl Psychiatry*. 2021 Jun;11(1):349.
6. Nussbaum NL. ADHD and female specific concerns: a review of the literature and clinical implications. *J Atten Disord*. 2012 Feb;16(2):87-100.
7. Ostojic D & Miller C. Association Between Pubertal Onset and Symptoms of ADHD in Female University Students. *Journal of Attention Disorders*. 2016 Sep; 20(9): 782–91.
8. Faraone SV et al. The World Federation of ADHD International Consensus Statement: 208 Evidence-based conclusions about the disorder. *Neuroscience & Biobehavioral Reviews*. 2021;128: 89-818.
9. Beheshti A, Chavanon ML & Christiansen H. Emotion dysregulation in adults with attention deficit hyperactivity disorder: a meta-analysis. *BMC Psychiatry*. 2020 Mar;20(1):120.
10. Faraone SV & Larsson H. Genetics of attention deficit hyperactivity disorder. *Molecular psychiatry*. 2019 Apr;24(4):562-75.
11. Shaw P et al. Emotion dysregulation in attention deficit hyperactivity disorder. *Am J Psychiatry*. 2014 Mar;171(3):276-93.
12. Villemonteix T et al. Grey matter volume differences associated with gender in children with attention-deficit/hyperactivity disorder: A voxel-based morphometry study. *Dev Cogn Neurosci*. 2015 Aug;14:32-7.
13. Van Stralen J. Emotional dysregulation in children with attention-deficit/hyperactivity disorder. *Atten Defic Hyperact Disord*. 2016 Dec;8(4):175-187.
14. Wender PH. Attention-deficit hyperactivity disorder in adults. *Psychiatr Clin North Am*. 1998 Dec;21(4):761-74.
15. Reimherr FW et al. ADHD and Anxiety: Clinical Significance and Treatment Implications. *Curr Psychiatry Rep*. 2017 Nov 20;19(12):109.
16. Tannock R. ADHD with anxiety disorders. In Brown TE (Ed.). *ADHD comorbidities: Handbook for ADHD complications in children and adults*. American Psychiatric Publishing. 2009;131–155
17. Australian Government: Institute of Health and Welfare. *Australia's Children*. 2022.
18. Carbonneau M et al. Meta-Analysis of Sex Differences in ADHD Symptoms and Associated Cognitive Deficits. *J Atten Disord*. 2021 Oct;25(12):1640-1656.
19. Quinn PO & Madhoo M. A review of attention-deficit/hyperactivity disorder in women and girls: uncovering this hidden diagnosis. *Prim Care Companion CNS Disord*. 2014;16(3).
20. Young S et al. Females with ADHD: An expert consensus statement taking a lifespan approach providing guidance for the identification and treatment of

attention-deficit/ hyperactivity disorder in girls and women. *BMC Psychiatry*. 2020 Aug;20(1):404.

21. Skogli EW et al. ADHD in girls and boys--gender differences in co-existing symptoms and executive function measures. *BMC Psychiatry*. 2013 Nov;13:298.
22. Solanto MV. Child vs adult onset of attention-deficit/hyperactivity disorder. *JAMA Psychiatry*. 2017; 74(4):421.
23. Sciberras E et al. Social and economic costs of attention-deficit/hyperactivity disorder across the lifespan. *Journal of Attention Disorders*. 2020 Oct.
24. Saatchi and Saatchi Wellness. ADHD Australia National Survey Report: the voice of the community ADHD. ADHD Australia. 2020 Oct.
25. Dalsgaard S et al. Mortality in children, adolescents, and adults with attention deficit hyperactivity disorder: a nationwide cohort study. *The Lancet*. 2015 May;385(9983):2190-6.
26. Chen VC et al. Attention-deficit/hyperactivity disorder and mortality risk in Taiwan. *JAMA network open*. 2019 Aug;2(8).
27. Septier M et al. Association between suicidal spectrum behaviors and Attention-Deficit/Hyperactivity Disorder: A systematic review and meta-analysis. *Neuroscience & Biobehavioral Reviews*. 2019 Aug;103:109-18.
28. Kakuszi B et al. Attention deficit hyperactivity disorder: Last in, first out - delayed brain maturation with an accelerated decline. *European Neuropsychopharmacology*. 2020;34.
29. Goodsell B et al. Child and Adolescent Mental Health and Educational Outcomes: An analysis of educational outcomes from Young Minds Matter: the second Australian Child and Adolescent Survey of Mental Health and Wellbeing. The University of Western Australia. 2017 Dec.
30. Parents for ADHD Advocacy Australia. Parent & carer experiences of ADHD in Australian schools: Critical gaps. 2019 Apr.
31. Fuermaier ABM et al. ADHD at the workplace: ADHD symptoms, diagnostic status, and work-related functioning. *Journal of Neural Transmission*. 2021 Feb;128:1021–1031.
32. Küpper T et al. The negative impact of attention-deficit/hyperactivity disorder on occupational health in adults and adolescents. *Int Arch Occup Environ Health*. 2012 Nov;85(8):837-47.
33. Halmøy A et al. Occupational outcome in adult ADHD: impact of symptom profile, comorbid psychiatric problems, and treatment: a cross-sectional study of 414 clinically diagnosed adult ADHD patients. *J Atten Disord*. 2009 Sep;13(2):175-87.
34. Adamou M et al. Occupational issues of adults with ADHD. *BMC Psychiatry*. 2013 Feb; 13(59).

35. Benjamin R, Haliburn J & King S. Humanising Mental Health Care in Australia: A Guide to Trauma-informed Approaches. 2019.
36. Van Hulzen KJE et al. Genetic Overlap Between Attention-Deficit/Hyperactivity Disorder and Bipolar Disorder: Evidence From Genome-wide Association Study Meta-analysis. *Biol Psychiatry*. 2017 Nov;82(9):634-641.
37. Chen et al. Common psychiatric and metabolic comorbidity of adult attention-deficit/hyperactivity disorder: A population-based cross-sectional study. 2018.
38. Cortese S et al. Comparative efficacy and tolerability of medications for attention-deficit hyperactivity disorder in children, adolescents, and adults: a systematic review and network meta-analysis. *Lancet Psychiatry*. 2018 Sep;5(9):727-738.
39. Kapellen TM. Prevalence of medically treated children with ADHD and type 1 diabetes in Germany - Analysis of two representative databases. *J Pediatr Endocrinol Metab*. 2016 Nov;29(11):1293-1297.
40. Schiweck C et al. Comorbidity of ADHD and adult bipolar disorder: A systematic review and meta-analysis. *Neuroscience & Biobehavioral Reviews*. 2021 Jan.
41. Gourlay D & Heit H. Universal Precautions Revisited: Managing the Inherited Pain Patient. *Pain Medicine*. 2009 Jul;10(2):S115–S123.
42. Baggio et al. Attention deficit hyperactivity disorder as a neglected psychiatric disease in prison: call for identification and treatment. *Forensic Science International: Mind and Law*. 2022 3;100071.
43. Mohr-Jensen C et al. Attention-Deficit/Hyperactivity Disorder in Childhood and Adolescence and the Risk of Crime in Young Adulthood in a Danish Nationwide Study. *J Am Acad Child Adolesc Psychiatry*. 2019 Apr;58(4):443-452.
44. Young S et al. A meta-analysis of the prevalence of attention deficit hyperactivity disorder in incarcerated populations. *Psychol Med*. 2015 Jan;45(2):247-58.