

Non-pharmacological strategies in the management of attention deficit hyperactivity disorder



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Background

Attention deficit hyperactivity disorder (ADHD) is a common neurodevelopmental condition affecting attention, impulse control and emotional regulation across the lifespan. Although pharmacological treatment is often effective, many patients benefit from additional psychological and lifestyle-based interventions that support daily functioning.

Objective

The aim of this article is to provide an overview of evidence-based non-pharmacological strategies for ADHD that may assist patients in general practice.

Discussion

ADHD management typically involves a multimodal approach combining pharmacological and non-pharmacological interventions. Psychological approaches such as cognitive behavioural therapy and behavioural parent training can support executive functioning, emotional regulation and adaptive coping. Environmental supports, including school-based interventions and organisational strategies, may improve functioning. Lifestyle factors such as sleep, exercise and regular routines also influence symptom management. General practitioners play an important part in psychoeducation, early intervention and referral to appropriate psychological or allied health services.

ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD) is a common neurodevelopmental condition that affects attention, impulse control and emotional regulation across the lifespan. Although pharmacological treatment is often an important component of management, many individuals also benefit from psychological and lifestyle interventions that support daily functioning. Non-pharmacological strategies can play an important part in improving executive functioning, emotional regulation and overall wellbeing.

Although person-first language is used throughout this article in line with medical conventions, it is acknowledged that some individuals may prefer identity-first terminology when describing ADHD.

This paper provides a brief overview of non-pharmacological interventions used in the management of ADHD, with a focus on practical strategies that can support patients in general practice.

ADHD management in adults

In Australia, increasing numbers of individuals are being diagnosed with ADHD, reflecting improved recognition and access to assessment. ADHD affects approximately 6–10% of children and 2–6% of adults in Australia.¹ It is a neurodevelopmental disorder associated with functional challenges across multiple domains and across the lifespan.

General practitioners (GPs) are often faced with a practical challenge: how can patients be supported while they are awaiting specialist assessment or pharmacological treatment, or when medication is not suitable or not preferred?

In clinical practice, medication is only one component of ADHD management. Current guidelines emphasise a multimodal treatment approach combining pharmacological and non-pharmacological strategies.¹ Many patients seek psychological support either before starting medication or later in treatment, when they want to introduce additional strategies to improve functioning. Some patients also decide that they do not want to rely solely on medication long term.

Current clinical guidelines identify several non-pharmacological approaches in ADHD management, including lifestyle interventions (sleep, exercise and diet), cognitive behavioural interventions, parent and family training, cognitive training, neurofeedback, and organisational or school-based interventions.¹

In clinical work, these approaches are often applied in an individualised and integrated manner. Intervention typically begins with improving self-awareness, followed by developing neuro-affirming strategies aligned with the individual's cognitive style, supporting more helpful and flexible thinking patterns, and establishing sustainable health routines, including sleep, movement and nutrition.

Establishing routine: Sleep, movement and daily structure

Working on a healthy and sustainable routine is a central component of ADHD management. Many individuals with ADHD struggle with irregular sleep patterns, inconsistent meals and fluctuating energy levels, all of which can worsen attention difficulties and emotional regulation.

Sleep difficulties are particularly common in ADHD and may include insomnia, delayed sleep phase and irregular sleep patterns.² Many patients describe what is sometimes referred to as 'revenge bedtime procrastination', delaying sleep because late evening may be the only time they feel they have space for themselves after a demanding day. Although understandable, this pattern often leads to insufficient sleep, difficulty waking, low energy and increased frustration the following day.

Improving sleep quality can therefore be an important starting point. Practical strategies may include maintaining a regular bedtime and wake schedule, reducing screen exposure before sleep and establishing a calming pre-sleep routine.

Regular physical activity has also been shown to have positive effects on attention, mood and executive functioning in individuals with ADHD.³ Encouraging patients to incorporate movement into their daily routines, even in simple forms such as walking or short activity breaks, can therefore be beneficial. Finding an exercise buddy can also be helpful. Scheduling regular walking sessions with a friend can improve

accountability, which is particularly useful for many individuals with ADHD.

Nutrition and regular meals are also relevant. Individuals with ADHD often struggle with irregular eating patterns because of hyperfocus, time blindness or reduced interoceptive awareness. Using shared shopping lists, meal-planning applications or family calendars can help reduce the cognitive load associated with planning meals and daily tasks.

Visual planning systems, such as wall planners where meals can be written down, whiteboards or digital calendars, can also be helpful in externalising organisational demands and ensuring that nutritious food is available at home.

Energy regulation and energy budgeting

Many individuals with ADHD experience fluctuations in energy, attention and motivation throughout the day. These fluctuations are partly related to differences in reward processing and dopamine regulation.⁴ When energy levels drop, individuals may experience increased urges to seek rapid sources of stimulation or reward.

Without awareness of these patterns, patients may rely on maladaptive coping behaviours to regulate their internal states. Common examples include binge eating, excessive screen use, gambling or other impulsive behaviours. In comparison to the general population, eating disorders, particularly binge eating disorder, occur at higher rates among individuals with ADHD and may partly reflect attempts to regulate emotional states and reward pathways.⁵

One useful concept when working with adults with ADHD is energy budgeting. Originally used in chronic illness management and occupational therapy, energy budgeting involves helping individuals recognise fluctuations in their internal resources and respond to them with intentional regulation strategies.

In clinical practice, some patients find it helpful to conceptualise their internal state using simple colour categories. Low energy (red) refers to periods of fatigue, reduced motivation or emotional depletion. Moderate energy (orange) refers to periods of manageable engagement. Higher energy (green) refers to periods of greater focus and cognitive capacity.

Importantly, this framework is not intended to categorise productivity. Rather, it helps individuals recognise when their nervous system requires regulation. During low-energy states, patients may be encouraged to use regulating strategies that provide gentle stimulation or soothing instead of relying on maladaptive dopamine-seeking behaviours.

Examples of these strategies include listening to music, taking a bath or shower, walking (or other brief movement), seeking sensory input such as fidget tools, doing breathing exercises or contacting a supportive person.

Developing awareness of these internal states and building a repertoire of alternative regulation strategies can help individuals respond more intentionally to fluctuations in energy and mood. Over time, this may reduce reliance on behaviours such as emotional eating and support more sustainable self-regulation.

Cognitive behavioural therapy and executive functioning

Cognitive behavioural therapy (CBT) has substantial empirical support as a non-pharmacological intervention for ADHD.⁶ Treatment typically begins with psychoeducation about ADHD and the ways in which it affects attention, motivation, hyperfocus and behavioural regulation.

For many adults, receiving a diagnosis of ADHD later in life can be accompanied by longstanding negative beliefs about themselves. Patients frequently report beliefs such as 'I am lazy' or 'I lack discipline'. These beliefs often develop over many years of academic or occupational challenges.

Part of CBT involves understanding how these beliefs developed and how they continue to affect functioning. Therapy then focuses on challenging and reframing these beliefs in a more accurate and compassionate way.

In addition to cognitive work, CBT also targets executive functioning difficulties commonly associated with ADHD. These include challenges with task initiation, time management, organisation and sustained attention.

Practical strategies that may be introduced include breaking tasks into smaller steps, using structured work intervals such as

the Pomodoro Technique, body doubling (working alongside another person) and planning tasks according to energy levels. These strategies help reduce the cognitive demands associated with task initiation and organisation.

Emotional regulation and interoception

Emotional regulation difficulties are common in ADHD. Patients may experience rapid shifts in mood, frustration intolerance or heightened sensitivity to perceived rejection.

Psychoeducation around emotional regulation can therefore be helpful. Skills drawn from dialectical behaviour therapy (DBT), such as distress tolerance and emotion regulation strategies, may be useful adjuncts.

It is important to notice that individuals with ADHD often experience differences in interoception, the ability to recognise internal bodily states. Reduced interoceptive awareness may affect the ability to recognise emotions, hunger, fatigue or stress. Building knowledge about emotions, such as identifying triggers and evaluating whether emotional responses 'fit the facts', is often part of DBT-based interventions. Alexithymia, or difficulty identifying and describing emotions, is also reported at higher rates in individuals with ADHD.⁷

Practices that strengthen interoception may therefore be beneficial. These can include simple exercises such as brief pauses during the day to notice bodily sensations or emotional states. Improving interoceptive awareness may also support more regulated eating patterns and emotional self-regulation.

Neuro-affirming and trauma-informed care

The Australasian ADHD Professionals Association (AADPA) guidelines emphasise that cognitive behavioural interventions for adults with ADHD should be tailored to individual needs, be strengths based and foster hope and personal empowerment.¹

This approach aligns with a neuro-affirming perspective, which recognises ADHD as a neurotype and focuses on helping individuals understand and work with their cognitive style rather than framing ADHD solely as a deficit.

Many adults with ADHD carry significant experiences of shame or rejection associated

with earlier life experiences. Difficulties at school, misunderstanding from teachers or peers and experiences of bullying can contribute to low self-esteem and negative self-concept.

Individuals with ADHD are also more likely to report adverse childhood experiences and exposure to trauma when compared with the general population.⁸ It is therefore important to consider this potential trauma load when working with individuals with ADHD. Addressing shame, rejection sensitivity and self-criticism is an important component of treatment. Supporting nervous system regulation through approaches such as mindfulness, movement or other somatic strategies may also be beneficial.⁹

ADHD management in children

Although many principles of ADHD management apply across the lifespan, children and adolescents often require additional support within family and school environments. Non-pharmacological management during childhood commonly involves behavioural parent training, structured behavioural interventions and collaboration with educational settings to support attention, behaviour and academic functioning.^{10,11} These approaches are well-established components of coordinated, multimodal ADHD treatment and have demonstrated benefits for symptom management, family functioning and school outcomes.¹²⁻¹⁴

GPs play a critical part in coordinating care, including facilitating access to psychological and allied health supports through mental health treatment plans or GP chronic condition management plans (GPCCMPs), as well as providing ongoing monitoring and follow-up over time.¹⁰ Providing a mental health treatment plan specifying that the main issue is ADHD enables access to structured, Medicare-funded psychological treatment (up to 10 sessions per year). Where ADHD is associated with chronic functional impairment, GPCCMPs support coordinated care (up to five allied health sessions per year).

Parent and caregiver support

Parent training and caregiver support are among the most well-established non-pharmacological interventions for

childhood ADHD.^{11,13} These programs aim to help caregivers understand the neurodevelopmental nature of ADHD while developing practical strategies to support attention, behaviour and emotional regulation at home.

Children with ADHD often benefit from environments that provide predictable structure, clear expectations and consistent feedback. Parent training therefore commonly focuses on establishing routines, using positive reinforcement and providing clear instructions and consistent consequences.¹² Behavioural parent training has been shown to improve child behaviour, reduce family stress and increase parent confidence in managing ADHD-related difficulties.¹³

Practical strategies may include visual schedules, structured routines and breakdown of tasks into smaller steps to reduce cognitive load and support engagement. Psychoeducation and parenting strategies can also help reduce family conflict and improve overall family functioning.¹¹

It is also important to recognise that ADHD may occur within families, and some parents may experience ADHD themselves. This may influence the implementation of organisational routines or behavioural strategies within the home environment.

School-based supports and collaboration

School environments play an important part in the daily functioning of children with ADHD, as difficulties with attention, impulse control and organisation can affect academic performance and classroom behaviour. Collaboration between healthcare providers, parents and schools is therefore often an important component of care.^{10,12}

School-based interventions may include adjustments to classroom environments, structured behavioural supports and individual learning plans. Evidence-based strategies include preferential seating, movement breaks, breakdown of tasks into smaller segments, additional time for assignments and the use of visual prompts or organisational supports.^{12,14}

Regular communication between parents and teachers can assist with monitoring progress and identifying emerging difficulties. GPs may also support

this process by providing documentation for school-based adjustments (eg letters outlining diagnosis and current supports to facilitate individualised learning plans) and contributing to multidisciplinary care planning where appropriate. In more complex cases, multidisciplinary meetings or school-based case conferences may help coordinate support strategies tailored to the child's needs.

Building executive functioning skills

Executive functioning differences are a core feature of ADHD and may become more apparent as children progress through school. These can include challenges with task initiation, organisation, planning and emotional regulation.¹⁰

Psychological interventions often focus on building practical executive functioning skills to support academic and daily functioning. Strategies may include planners, visual homework schedules, breakdown of tasks into smaller steps and external reminders.¹²

Adolescents may particularly benefit from coaching approaches that support time management and task prioritisation. External supports such as timers, alarms or visual planning systems can reduce reliance on working memory, whereas reinforcing small successes may help strengthen motivation and encourage sustained use of organisational strategies.

Lifestyle factors

Lifestyle factors such as sleep, exercise and daily structure may influence the severity and management of ADHD symptoms in children and adolescents.¹⁰

Sleep difficulties are common and may include delayed sleep onset or irregular sleep patterns. Establishing consistent bedtime routines and reducing stimulating activities before sleep may help improve sleep quality and daytime functioning, although individual preferences and regulation strategies may vary.

Regular physical activity has also been associated with improvements in attention, behavioural regulation and overall wellbeing in children with ADHD.³ Participation in sports or other movement-based activities may support energy regulation, social interaction and skill development.

Psychoeducation and strengths-based approaches

A final important management component is psychoeducation, which helps to improve understanding of ADHD and support engagement with management strategies.¹⁰

A strengths-based approach may also be beneficial, as many children with ADHD demonstrate creativity, curiosity and high energy when appropriately supported. Encouraging recognition of strengths while developing practical coping strategies can support self-esteem and adaptive functioning.^{10,12}

As children move into adolescence, fostering autonomy and teaching organisational and emotional regulation strategies may help young people manage increasing academic and social demands.¹²

Conclusion

Management of ADHD requires a multimodal approach that combines pharmacological and non-pharmacological interventions. Psychological strategies, lifestyle adjustments and environmental supports can help individuals develop practical skills for managing attention, organisation and emotional regulation. GPs play an important part in supporting patients through psychoeducation, early intervention and referral to appropriate psychological or allied health services.

Key points

- Non-pharmacological management should prioritise practical, individualised strategies, including improving self-awareness, developing neuro-affirming approaches aligned with cognitive style, and supporting more flexible thinking patterns.
- Targeting daily functioning through sustainable routines (sleep, movement and nutrition) and energy regulation strategies can reduce reliance on impulsive or maladaptive coping behaviours.
- GPs play a key part in supporting adults with ADHD through psychoeducation, early intervention and referral to psychological services that provide executive functioning and skills-based support, which can be facilitated through mental health treatment plants and GPCCMPs.

- Non-pharmacological management of ADHD in children typically involves parent training, behavioural strategies and collaboration with schools, with GPs playing a central part in coordinating care and facilitating access to supports.
- Practical interventions targeting executive functioning, routines and environmental structure, alongside strengths-based and psychoeducational approaches, can improve functioning, engagement and wellbeing across home and school settings.

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