



Government of **Western Australia**
Child and Adolescent Health Service



Is ADHD Complex?

Answers to some of your questions about ADHD
and how it may affect your child and family





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About the Service

The Complex Attention and Hyperactivity Disorders Service (CAHDS)

The Complex Attention and Hyperactivity Disorders Service (CAHDS) is a state wide service that works with children, young people (under 18 years old) and families. Children and young people accessing CAHDS must have a diagnosis of ADHD and currently being treated by a Paediatrician or Child Psychiatrist. We work with children and young people who have not responded to typical ADHD interventions, and are continuing to experience persistent problems with symptoms or functioning. This can manifest in their behaviour and adversely affect their developmental progress and mental health. CAHDS is a free service funded through the Department of Health WA.

What happens at CAHDS?

CAHDS provides a specialised assessment and recommendations for future management such as other services to work with in partnership with your referrer. CAHDS also provides targeted group treatment programs to children and families accessing our service. We do not offer ongoing individual treatment or pharmacological intervention.

CAHDS assessment involves a comprehensive multidisciplinary assessment. Our clinicians work collaboratively with your child and family to understand your child's abilities and challenges and identify co-morbid issues that may occur with ADHD. Our assessment may include detailed psychosocial, speech pathology, occupational therapy, neuropsychology and psychiatric assessments.

We provide information sessions on ADHD and related issues, including the Therapeutic Crisis Intervention for Families (TCI-F) program, to families and schools. These sessions occur several times throughout the year, and are available for free. You do not have to be currently engaged in our service to attend the information sessions.

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Scan QR code to email CAHDS from your phone:

1. Open camera on your phone
2. Tap QR code in the image
3. Write contact email to CAHDS





Foreword

Why have we written this booklet?

This booklet has been written by clinicians working in Complex Attention and Hyperactivity Service (CAHDS) for families of children with ADHD. CAHDS is governed by Child and Adolescent Mental Health Service (CAMHS) which is part of the Child and Adolescent Health Service. CAHDS is an assessment service for children and young people diagnosed with ADHD who are experiencing ongoing issues with the management of their ADHD. CAHDS also provides a consultative service to other CAMHS teams for children with attentional difficulties.

The CAHDS team is made up of:

- Clinical Psychologists
- Mental Health Nurses
- Clinical Neuropsychologists
- Occupational Therapists
- Speech Pathologists
- Social Workers
- Child and Adolescent Psychiatrists
- School Psychologists from the Department of Education.

Parent information sessions have been provided since 2015 as a means to increase parents' knowledge and understanding of issues that may impact on their understanding of their child. As such, CAHDS developed Parent Information Sessions on various topics related to ADHD. The information session topics were identified by parents who indicated that they wanted more information on topics related to ADHD. This booklet collates the information presented in the parent information sessions and it is the intention parents can use this as a ready reference.



The authors of this booklet have tried to include resources available nationwide. Some resources may be specific to Western Australia. If you are accessing this booklet outside of Western Australia, it is recommended that you check local resources with your respective health.

The advice provided in this booklet is for general information only and detailed information must be obtained from the treating doctor as well as the product information provided by the company prior to commencing any medications.

This booklet is also available electronically on our website:

<https://cahs.health.wa.gov.au/Our-services/Mental-Health/Specialist-services-and-day-programs/Complex-Attention-and-Hyperactivity-Disorders-Service>

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Chapter 1

Introduction to Attention-Deficit Hyperactivity Disorder (ADHD)

What is ADHD?

Attention Deficit Hyperactivity Disorder (ADHD) is one of the most common disorders in children. It is understood to be a neurodevelopmental disorder (where the development of the brain is affected) that is commonly subdivided into problems of attention, problems of increased activity and problems of impulsivity. ADHD is often diagnosed in childhood and can continue into adulthood. ADHD occurs in both girls and boys. ADHD is commonly thought to affect at least 5 out of every 100 children, although this number can vary between 2 and 10 out of every 100 children.

Examples of problems a child with ADHD may have in these areas include:

Attention

- Poor attention to details or making careless mistakes
- Appearing not to listen even when spoken to directly
- Losing things easily
- Easily distracted
- Easily forgetful
- Problems with finishing tasks or following through on instructions
- Problems with organising tasks or activities
- Problems holding attention, especially to everyday tasks
- Avoidance of tasks that require prolonged mental effort

Hyperactivity

- Fidgeting or squirming
- Difficulty sitting still
- Running about or climbing excessively
- Trouble playing quietly
- Appearing as if constantly 'on the go'
- Talking excessively

Impulsivity

- Blurting out answers before questions have been completed
- Difficulty waiting their turn
- Interrupting conversations



There are three sub-types of ADHD noted in the Diagnostic and Statistical Manual of Mental Disorders:

- **ADHD Inattentive sub-type**

- Children with predominantly inattentive presentation display mostly the inattention symptoms noted above.

- **ADHD Hyperactive-Impulsive sub-type**

- Children with predominantly hyperactive/impulsive presentation display mostly the hyperactive/impulsive symptoms noted above.

- **ADHD combined sub-type**

- Children with predominantly combined presentation display both a mix of inattention and hyperactive-impulsivity symptoms.

How is ADHD diagnosed?

The diagnosis of ADHD follows a thorough assessment usually by Paediatrician or a Child and Adolescent Psychiatrist. This involves obtaining information about the child or young person from different people (e.g., parents, teachers) who know the child or young person well. This may include observations, questionnaires, school reports and specific testing (e.g., cognitive testing). This process also helps to rule out other issues (e.g., developmental, medical, mental health) that may better explain the child's difficulties. It is important to have a detailed understanding of the child/young person before making any decision about their diagnosis and treatment.

What causes ADHD?

There is no specific cause of ADHD. There are factors that may contribute to the development of ADHD.

Some Risk Factors	
• Family history of ADHD	• Complications during birth
• Brain injuries	• Low birth weight
• Mother's mental illness	• Oxygen deprivation at birth
• Exposure during pregnancy to: <ul style="list-style-type: none">– toxins (e.g., tobacco, alcohol, lead, drugs)– mother's stress– viral infections	• Negative childhood experiences (e.g., chaotic and conflictual family environment)
	• Psychological trauma following a stressful event.



How is ADHD treated?

ADHD is usually treated using a combination of:

- **Medication**
- **Psychological therapy including psychoeducation**
 - This can help address other issues the child/young person is experiencing such as anxiety, depression, sleep, social skill difficulties, emotional regulation, and executive functioning. It can also help the child/young person get a better understanding of their difficulties and ADHD.
- **Parent education**
 - This helps with increasing parental understanding of ADHD, confidence with their ability to raise their ADHD child, and specific parenting strategies.
- **Educational strategies**
 - This helps with addressing areas the child/young person is having difficulties with at school. An Individual Education Plan (IEP) or Individual Behaviour Management Plan (IBMP) can outline strategies to address specific areas the child/young person has difficulty with at school (e.g., learning difficulties in the areas of spelling, reading, writing, and comprehension, sensory difficulties, executive functioning, working memory, processing speed, challenging behaviours).



Chapter 2

Understanding your child's behaviour

Children are often described in terms of their behaviour. This is particularly true when describing children with ADHD.

Behaviour - what do we mean?

All behaviour has a reason. Children often use behaviour as a means of communication. They may be trying to tell us they need to:

- get something they desire (e.g., food, activity, attention)
- get away from/avoid something (e.g., pain, noise, difficult task)
- express their emotions

Behaviour is often interpreted as positive or negative. Behaviour may be interpreted as negative because:

- parents can feel helpless when trying to manage it
- it may have negative consequences for children (e.g., academically, socially)
- it may contribute to conflict within the family and damage family relationships

When describing behaviour, the setting and circumstances in which it occurs may often be overlooked. This can be called the “function” of behaviour. Understanding the reason behind the behaviour can help us support the child develop more appropriate behaviours to have their needs met.

Getting needs met

Some behaviours are more effective than others in getting the child's needs met, particularly if the behaviour has been reinforced in the past.

Reinforcement can be:

- **Negative: taking away something to increase a behaviour**
 - e.g., putting a child in timeout when they throw their book in anger when asked to complete an assignment. In this example, the timeout gets the child out of completing the assignment - something they were looking to avoid in the first place by throwing the book. The act of putting the child in timeout has negatively reinforced the behaviour of throwing the book in anger as it has helped them avoid a possible difficult assignment.
- **Positive: adding something to increase behaviour**
 - e.g., giving a child a lolly because they are crying. This means they will be more likely to have a tantrum to get a lolly.

The use of reinforcement is a powerful motivator to complete a task. Motivation to complete a task/comply with an instruction can be

- **Intrinsic: within the individual**
 - e.g., reading a book because you enjoy reading and are interested in the topic
- **Extrinsic: outside the individual**
 - e.g., reading a book because you will get a canteen voucher from the teacher

Intrinsic motivators can be more effective and long-lasting but are more difficult to use as a reward. Extrinsic motivators are easier to use as a reward but lose their effectiveness over time. Extrinsic motivators need to be modified. They may lose their effectiveness if they do not address the need or the need changes. Extrinsic motivators are useful to initiate change in behaviour. They are more effective when intrinsic motivators are used alongside.

- For example, a child who constantly interrupts a parent may temporarily stop interrupting when given a small treat. However, going with the child to get the treat in response to them not interrupting maybe more effective as you may be addressing the underlying need of the child wanting to spend time with you.

It is therefore important to understand the need the child is trying to communicate with their behaviour. Behaviour can often be a poor communicator of our needs or feelings. Sometimes the need being communicated by a particular behaviour can be easily identifiable whereas at other times this may not be as obvious.

The Iceberg:

- Often what we see externally is the behaviour (the iceberg visible on the surface).
- What we may not see are the underlying feelings and needs (the ice hidden under the water).
- Children may sometimes engage in extreme behaviours (e.g., impulsive outbursts, self-injury, defiance, inability to regulate emotions).
- These behaviours may be the result of emotional and psychological factors (e.g. trauma response; see below for more information). In these cases the feelings and needs in the lower part of the iceberg need to be acknowledged.
- Children displaying extreme behaviours often need assistance to express their hurt (big feelings) as well trusting that others can help them with managing this hurt.



Understanding the possible reasons for a particular behaviour can help with providing a response that is attuned to the needs of the child.

Addressing the behaviour in isolation while not responding to the underlying needs and feelings can lead to a child replacing one unwanted behaviour with another to have their needs met. This can lead to increased parental frustration as parents will feel that they have tried everything to manage the behaviour.

The following table illustrates the iceberg concept.

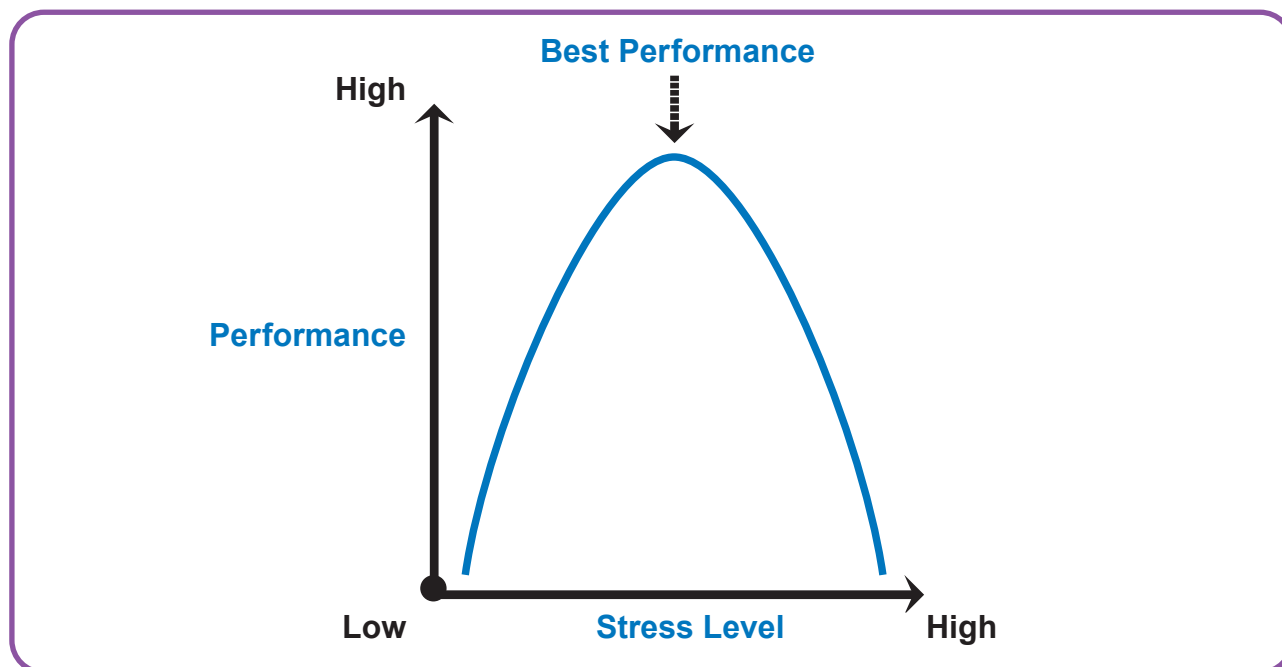
Behaviour	Need (possible)	Feeling (possible)	Response to behaviour
Child is 'surfing' on top of table when teacher walks into class room	<ul style="list-style-type: none"> • Get out of classroom/ learning environment • To make people laugh/like me • Show the teacher they can't control me • Have some sensory or movement input 	<ul style="list-style-type: none"> • Embarrassment or shame as not as 'smart' as others or feeling judged by teacher or peers • Lonely or disengaged from others; socially excluded from peers. • Disempowered • Restless, under stimulated, anxious 	<ul style="list-style-type: none"> • Send child out of class • Chastise child in front of class

In the example above, the responses do not help the child get their needs met, and may in fact, reinforce the feelings driving the behaviour (e.g., sending the child out of the class may further increase their feelings of disengagement or reinforce the avoidant behaviour and underlying sense of embarrassment).



What affects how children manage their feelings and behaviour?

- Degree of Stress



* graph based on Yerkes & Dodson (1908) Inverted U Theory

A certain degree of 'stress' is needed to motivate us to do something. Too little or too much stress can lead to suboptimal performance, avoidance, or irrational or dysregulated behaviour. In times of stress or excitement the ability to use coping strategies or previous behaviours may be compromised. In these situations, it is important to consider what is possible for a child to achieve at that point in time.

- **Trauma or negative experiences**

A trauma response is not only triggered by abuse (physical, emotional, sexual, neglect). Children, including those with ADHD, may also experience a trauma response related to significant negative experiences (e.g., bullying, peer rejection, sense of failing). This can affect their ability to manage feelings and behaviours. When a child faces a real or perceived threat the stress response* is more readily activated.

*further details in family stress chapter

- **Expectations**

A parent's expectations of their child's behaviour should take into consideration the ability of the child (e.g., cognitive, physical, emotional and developmental) to meet those expectations. For example, a child who is impulsive may not be able to inhibit their responses, or a child who has attention issues may get distracted. If a child does not have the skills to meet certain expectations, it is unlikely that sole use of external incentives will help the child meet those expectations. The focus must be on both building the child's skills as well as using reinforcements appropriately. In some instances a child may never be able to meet those expectations and accommodations may be necessary.

- **Goal or need motivating the behaviour**

Although a child's behaviour can change, the goal or need of the behaviour usually fits into one of four categories. The child may not be aware of their need or why they are behaving in a certain way. To assist a child manage their behaviour, it is useful for adults to be aware of the emotional response that is elicited in themselves when they are faced with a child's behaviour.

Goal/Need	Belief/ thought/ cognition/ feeling	Child's behaviour	Emotional response in parents
Attention/ Attachment seeking	I need to be in the person's mind/ interactions	Child repeatedly interrupts parents whilst on phone because they are thirsty, hungry, can't find something, can't get something to work, starts arguing with their brother	Annoyed
Power	I need to be master of my own destiny/be able to make decisions about self	Conflict with parent; arguments	Angry, provoked as if parental authority is threatened
Revenge	I am hurting or unlovable	Child says "I hate you"; "You're fat/ a bad cook"	Deeply hurt
Display of inadequacy	I am incapable or if I become capable you will not like me or need me	Child cannot make their bed despite being shown and assisted a number of times how to do it.	Despair, hopeless (I give up)

* Based on Dreikurs (1948).

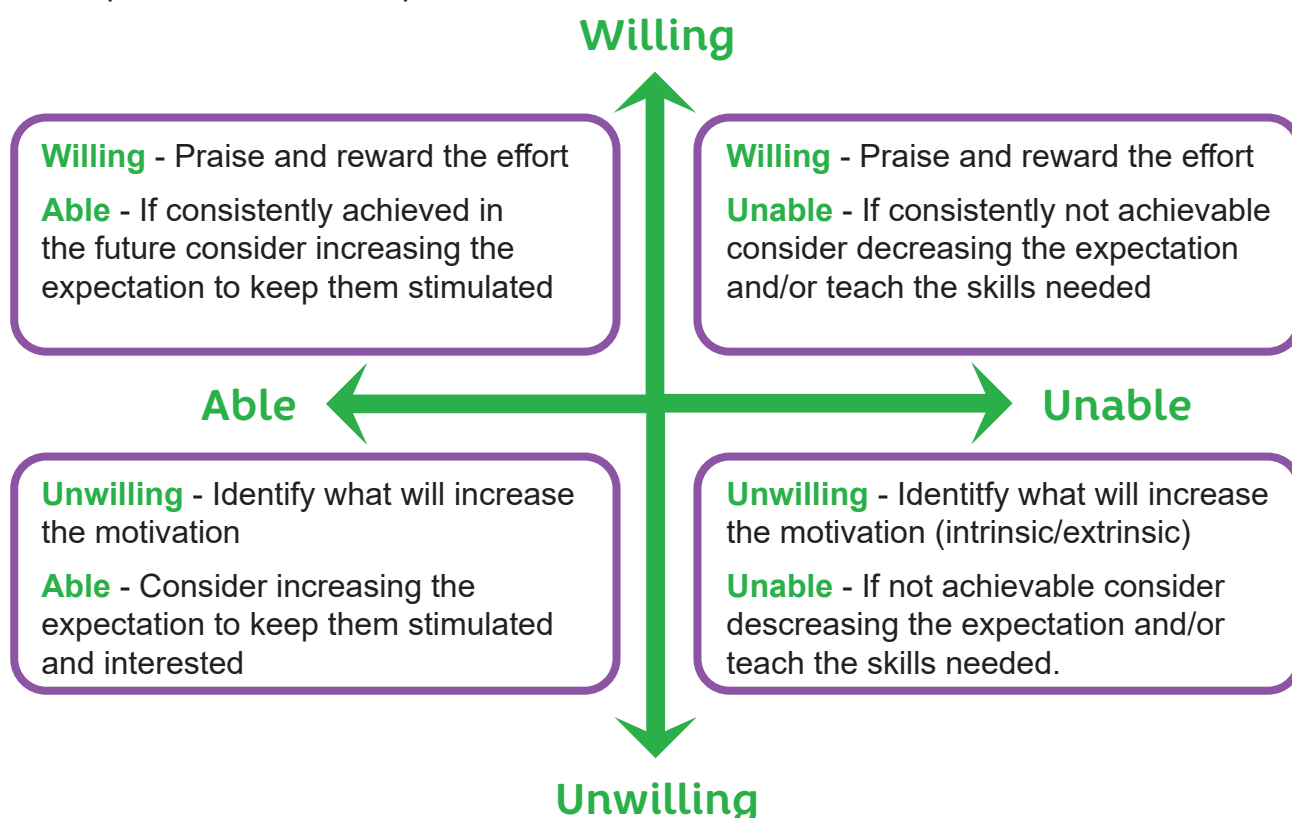
Appendix 1 has a suggested recording sheet that parents can use to help identify a child's need as outlined in the table above.



Willingness and Ability

When faced with behaviour that may be challenging or difficult consider what is contributing to the behaviour: unwillingness or inability (or maybe both)?

If it is an unwillingness then we may need to address how to positively motivate the child so that they will make an attempt. Consider what the behaviour is trying to tell us. If it is inability, changing expectations or further skills training maybe necessary. The picture below provides some examples.



*Matrix based on Paul Hersey and Ken Blanchard (1977) Willing and Able Matrix.

Consequences vs punishment

When encouraging a child to use alternative behaviours, using punishments may deter them from doing what they were doing. It does not necessarily teach them an alternative strategy to use in the future. It is important to remember if we are taking away a behaviour used to communicate or meet a need we need to teach a new way of communicating or getting the need met.

As children develop, they will test boundaries and their thoughts/beliefs about themselves and the world. When testing these boundaries their behaviour may not be appropriate or acceptable within a setting. However, it maybe developmentally appropriate for the child (e.g., a two year old having a tantrum when they don't get what they want; an adolescent not complying with an instruction). As significant adults in their life we can teach and guide them to use socially acceptable and effective communication to get their needs met.

Additional resources to assist with understanding behaviour

Organisation: Department of Social Services (Raising Children)

Details: The Raising Children website provides ad-free parenting videos, articles and apps backed by Australian experts in the field.

Contact: <https://raisingchildren.net.au>

Notes:

Chapter 3

Executive Functioning and ADHD

What is Executive Functioning?

Executive functioning may be understood as a set of mental skills that help us to plan, stay focused without becoming distracted and flexibly solve problems so as to achieve our goals. It involves skills such as working memory, mental flexibility, self-control and organisation.

Working memory is our ability to hold and work around different pieces of information in our short-term memory (e.g., remembering multiple instructions from parents to go to your room, change your shirt and come back to set the table for dinner).

Mental flexibility is being able to switch our attention or apply different rules when situations change (e.g. if we are missing a recipe ingredient, we can substitute it or ask our neighbour).

Self-control is being able to hold back impulses and prioritise what is most important (e.g., not yelling in a library when we are angry that someone bumped into us).

Executive functioning skills are essential for achievement in school, managing big feelings, developing positive behaviours, maintaining healthy and meaningful relationships, and being successful in work environments.

Development of Executive Functioning

The building blocks for these skills begin in early childhood, and these skills can continue to develop well into early adulthood. The developmental pathway can be different for males and females. Some males may continue to develop their executive functioning control until 30 years old. Females tend to develop their executive functioning control earlier than this (at approximately 20-25 years).

The development of executive functioning skills is enhanced by:

- Supportive families and teachers
- Fun activities that improve social skills
- Safe home and school learning environments

Stressful events such as abuse and neglect can disrupt the brain development and place children at a disadvantage with the development of these skills.



Impact of ADHD on Executive Functioning

Children with ADHD have a higher likelihood than other children to have difficulties with executive functioning. ADHD is a neurodevelopmental disorder that affects a person's ability to sustain their attention to manipulate different pieces of information; selectively tune out distractions to focus on their goals; and hold back impulses.

Children with ADHD may be slower in the development of their executive functions. This can vary up to 30% and up to 6 years behind their peers in some cases. This means that they are often thinking or behaving in ways that are younger than same aged peers, which can lead to difficulties with their learning, relationships with friends and adults, and the way they manage feelings. They may then be mistakenly labelled as 'lazy', 'rude' and 'defiant'; which further maintains their difficulties. Children with ADHD can sometimes also have other difficulties such as language disorders, anxiety, specific reading disorder (e.g., dyslexia), fine-motor difficulties and sensory processing differences, which further impact on their executive functioning. These difficulties highlight the importance of supporting children with ADHD and managing expectations of them across the lifespan.

While it is hard to clearly separate the different constructs of executive function in real-life situations, here are some examples of the areas of executive dysfunction common in children with ADHD: Jayden, Sophia and Isabella are fictional characters used to illustrate areas of executive dysfunction.

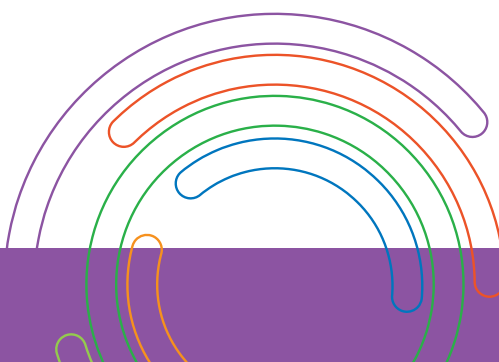
Area of executive dysfunction	Example	Impact
Organisation and Task Initiation	<p>Jayden has started high school this year. After dinner, he knows it is time to do some homework but there are so many different subjects, projects, homework, tests and exams (organisation).</p> <p>Jayden cannot get his head around what task to start with (initiation), or the different steps to complete each task (organisation).</p> <p>Defeated, he stares blankly at his bedroom wall. One hour later, he still hasn't started on anything (initiation). His mother walks past his bedroom and yells at him to "Jayden, stop daydreaming! I can't believe you haven't started on anything in the past hour!"</p>	<p>Learning: It is difficult for Jayden to hold different information from different subjects in mind. He often misses key information due to the limited size of his working memory. He may mix up the sequence of learning, or even appear to 'make up stories' to fill the gaps of what he has missed.</p> <p>Social: He is unable to keep up with the pace of learning in high school, is labelled by teachers and families as a 'day-dreamer', 'lazy', 'lost cause'. He no longer enjoys going to school, and starts losing interests even in subjects he used to enjoy. He sits alone at lunch and isn't interested in playing sports or talking with his peers.</p> <p>Emotional: Jayden becomes sadder and more withdrawn, he starts to think "What's the point of even trying when I'm going to get it wrong anyway?"</p>
Self-awareness/ Impulse Control and Working Memory	<p>Sophia calls out her answer before her teacher has finished reading the story to the entire class (impulse control).</p> <p>Her teacher singles her out before the class, stating "Sophia, it is very rude of you to interrupt when I am speaking. Go to 'Time Out' now". Everyone turns to Sophia and are either frowning or shaking their heads at her. Sophia still isn't quite sure why they are annoyed with her... (self-awareness)</p>	<p>Learning: Sophia may miss key information when learning as she has not listened to the full story (working memory).</p> <p>Social: Teacher sees her as 'rude' for interrupting; and other children are annoyed with Sophia for frequently yelling out. She gets sent to 'time out'. She may also be gradually ostracised by other students.</p> <p>Emotional: Sophia doesn't understand why she is being sent to 'Time Out' and feels confused, ashamed and angry.</p>

Area of executive dysfunction	Example	Impact
Emotional Control / Mental Flexibility	<p>Isabella is playing a game of Uno with her family on Sunday night. Everyone is laughing and having fun.</p> <p>It is her turn, and this is the third time in a row that she has to 'draw two'. Suddenly, Isabella jumps out of her seat and shouts "This is not fair!" bursting into tears and pushes all the cards to the floor (emotional control / mental flexibility). The game stops and Isabella's father takes an hour to calm her down.</p>	<p>Learning: Isabella may miss out on fun activities that she may perceive to be 'unfair'. This may lead to her missing out on fun activities which are essential for life.</p> <p>Social: Families and friends may be more reluctant to engage Isabella in spontaneous games for fear of her emotional outbursts, and her opportunities to practice turn taking, managing wins and losses are limited (mental flexibility).</p> <p>Emotional: Isabella continues to have great difficulty managing emotions, where she has frequent outbursts, tantrums. Even when she is happy, it can lead to excessive 'silly' behaviours</p>

What now?

Given the impact of ADHD and executive dysfunction on learning, behaviours, feelings and relationships, it is crucial for adults at home and in school to identify these areas of difficulties early on. This will allow for and provide appropriate supports to be provided for their difficulties, particularly when children and adolescents are developing these abilities.

Parents and carers also play a big role in advocating for their child in school settings. Often children with ADHD and executive functioning difficulties are at risk of being mislabeled as "badly behaved" or "difficult", when they have genuine difficulties that impact on their learning, behaviours and relationships. When mislabeled, this can put them at further risk of disengagement from school, risky behaviours and mixing with antisocial peers. Regular, open and calm communication between families and schools can support the child by identifying problems early on and jointly problem solving these difficulties.





Strategies to assist with Executive Functioning

Early identification of these difficulties and advocating for your child's needs can promote the use of appropriate supports and strategies to strengthen their executive functioning over time. Parents and teachers play a very important role in supporting the development of these skills, first by helping children complete tasks they find difficult (scaffolding), then slowly stepping back to allow children to practice and learn from their mistakes. Children build their self-confidence and ability by repeatedly experiencing success with each practice⁵.

Here are some common strategies to consider

1. **Take a few deep breaths or a few minutes away from a potentially heated situation!**

Have a mantra in mind before speaking with your child. For example “My child isn’t **giving** me a difficult time, they are **having** a difficult time.” or “They need my help, how can I best respond?”

Your child (*remember they have difficulties managing feelings!) will also need your help to take a few deep breaths together, have a cuddle, a hot drink, or a reassurance from you that “It’s ok, we can work through this”.

2. **Guide your child from complete dependence on adults to gradual independence:**

When working through a complex task, it can be helpful to first **show** them what to do, then **telling** them what to do, then **asking** them to do it, until they are able to take over that role **on their own**. As with learning any new skills, this takes time and repeated practice. Supportive adults modelling appropriate self-talk and behaviours can help children build their inner self-talk in positive ways. Using visual supports or writing steps down can help your child remember how to complete a task independently.

Praise your child’s effort regardless of outcome. Affirming their successes can also encourage them to develop resilience and a positive self-image.

3. **Modify your expectations, the task and/or the environment**

Identify the best way your child learns (e.g., time of day, sitting positions, sensory preferences, visual or verbal learners) and consider when may be the best time to do what. For example, children with ADHD tend to be exhausted after school as they have

had to work a lot harder than other children to stay seated, attend to information, work out what they have to do in class and interact socially with their peers. Asking them to do their homework the moment they get home may just be “too much” for them. Having a set (but flexible when required) routine after school such as exercise, healthy snacks or a warm shower may help them “re-set” their emotions and complete home tasks.

Just like we all have good and bad days, their performance and attention will vary depending on their mood and energy levels. Have in place other activities or plans when things may not be possible on one day. Encourage them to express how they feel and when they feel overwhelmed.

When they are calm and rested, help them identify which task needs to be prioritised and use visual aids like a checklist, or a calendar. Speak slowly using simple language, writing key points down so that they can refer back to a static reminder if they miss any key steps. They may also need reminders, not because they were not listening, but because they have limited working memory storage. Allow regular rest periods for them to review their work, and pre-warn them before transitioning to the next task.

If the work is too difficult for your child, consider meeting with their teacher to discuss possible ways to modify the tasks so that they can be assessed for their learning, at an appropriate level for your child (e.g., if they have marked difficulties with writing an essay, can they demonstrate their learning through dot points instead of an essay, multiple choice options, or “hands on” demonstration of a skill). It may take several trials and errors to find the appropriate modifications; be patient and validate everyone’s efforts. With repeated successes, consider gradually increasing task complexity to support their independence, confidence and abilities.

4. **Teach your child effective ways to learn**

Consider teaching them strategies that place less demand on their working memory, and maximise their learning such as:

- **Chunking**

e.g., If you had to dial the number 135610, if you remember it as 1 3 5 6 1 0, that is six chunks of information, which fills your working memory. If you chunk the number into 13 56 10, that is three chunks of information, which is much easier to remember.

- **Mnemonics**

Teach Child to use mnemonics to help them remember new information, e.g. VIBGYOR- for the colours of the rainbow/ light spectrum (Violet, Indigo, Blue, Green, Yellow, Orange, Red).

Creating a story to remember words/item for a shopping list: Cornflakes, banana, milk, toothpaste.

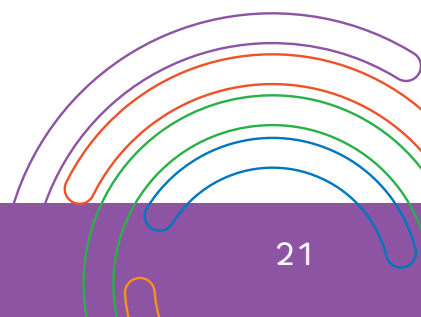
“In the morning I get up and eat my cornflakes with banana and have a cup of milk. Then I clean my teeth”.

- **Mindmaps**

e.g., A diagram used to visually organise information and show relationships between information.

- **Brain storming**

e.g., Writing down all possible ideas related to a topic.





5. **Try to link new learning to previous learning.** Structure new situations as much as possible (e.g., teacher can provide a handout of key points before the lesson), and give small amounts of new information at a time.
6. **Teach them new ways to manage big feelings** such as asking for help from a helpful adult or peer; taking a deep breath or a sip of water and telling themselves “this looks hard, but I’ve done this before and I can do this again” before starting a task. Consider mental health input (e.g., psychology, OT) if their feelings start to impact significantly on their daily activities.
7. **Learning continues at home!** In many ways, parents are better placed than teachers to teach functional strategies with their children. Daily activities (chores, setting the table, cleaning room etc.) require executive functioning. On the days you can’t spend individual time with your child, include them in your own daily routine.
8. **Have fun!** There are some family activities that can promote executive function including board games, sports, music and dance.

The Center on the Developing Child, Harvard University has a working paper “Enhancing and Practicing Executive Function Skills with Children from Infancy to Adolescence” (<https://46y5eh11fhgw3ve3ytpwxt9r-wpengine.netdna-ssl.com/wp-content/uploads/2015/05/Enhancing-and-Practicing-Executive-Function-Skills-with-Children-from-Infancy-to-Adolescence-1.pdf>) that suggests some activities according to chronological age. Keep in mind that children with ADHD may be slower in their development of these skills.

9. **Speak with your child’s doctor and/or teacher about your concerns** if these difficulties remain or worsen even after a prolonged period of regular intensive support (e.g., 12 months). Your professional may discuss if there is a need for further assessments.
10. **Self-care:** “Put your own oxygen mask on first before helping someone else”. Parents of children with ADHD experience a great deal of stress doing their best for their families and children. **Self-care is not selfish, and is of benefit to you and your child.** Take some time out of your day to do something kind and nurturing for yourself, be it yoga, writing, joining a support group, catching up with a friend over coffee, or speaking with a mental health professional can help you clear your mind, reset and better support and advocate for your child.



Key Takeaways

Executive functioning involves working memory, mental flexibility, self-control and organisation.

Given the impact of ADHD and executive dysfunction on learning, behaviours, feelings and relationships, early identification and support is crucial. Parents and teachers play a very important role in supporting the development of these skills. Be wary of quick fixes, and things that may sound too good to be true or interventions that are not based on evidence.

When supporting your child, consider changing your expectations, the task and/or the environment, and teach them new ways to manage big feelings.

Helpful strategies to enhance learning are:

- Using visual supports
- Simple language
- Chunking
- Mnemonics
- Mindmaps
- Brainstorming

Take some time out of your day to do something kind and nurturing for yourself.

Additional resources to assist with Executive Functioning

1. Center on the Developing Child, Harvard University, <https://developingchild.harvard.edu/guide/a-guide-to-executive-function/>
2. InBrief: Executive Function: Skills for Life and Learning https://www.youtube.com/watch?v=efCq_vHUMqs&feature=emb_title
3. Executive Function 101 Prepared by the National Center for Learning Disabilities https://www.edrevsf.org/wp-content/uploads/2019/01/executivefunction101ebook_344.pdf
4. Helping Children with Executive Functioning Problems to Manage Physical Impulsiveness <http://www.idonline.org/article/29048>
5. Helping Children with Executive Functioning Issues Manage Behaviours <http://www.idonline.org/article/29121>
6. Helping Children with Executive Functioning Problems Turn In Their Homework <http://www.idonline.org/article/29043>

Chapter 4

Communication and ADHD



These are examples of common comments made by parents of children with a diagnosis of ADHD. The comments are generally related to difficulties with communication skills.

We all use communication skills to provide information, to pass on our thoughts and ideas to others, to give instructions and to make comments. We also ask questions to find out about what we don’t know or to check that we have understood something correctly. We have all had experiences when communication breaks down, where we are misunderstood or haven’t fully understood what others are saying. When communication breaks down it is frustrating or embarrassing for the person giving information and the person trying to understand the information.



Receptive and expressive language

The skills needed to give information to others are known as **expressive language skills**. First words usually emerge around a child's first birthday and language develops from there. Not only do they learn words, but also learn to use grammar and sentence structure to put words in the correct order and the correct form to make the meaning clear. As children's language develops, their vocabulary keeps on expanding. A child's speech sounds also need to develop accurately for their speech to be clear and for their messages to be easily understood. Speech impairments refer to the actual speech sound production and are separate to language development.

The skills needed to understand information are known as **receptive language skills**. Children develop their understanding of concepts such as size and directions from very early on. At first, understanding information is about what is happening right there and then but as children develop language and thinking skills they start to link new information to their past experiences. They add information to categories and start to think about, and problem solve, using old and new information. Children learn to work out what information may have been implied without having been said specifically, this is known as making inferences. Children also use their understanding of what was said to predict what might happen next or what has caused something to happen. Children need to understand language to be able to follow instructions and to be able to answer questions.

Literacy

Communication is not only about using and understanding spoken words. When children start school they start to read and write. Reading is the ability to understand written information whereas writing is the ability to express thoughts, ideas and the knowledge they have on certain topics. Again it is the ability to give or understand information.

Non-verbal communication

Communication is also much more than just the words being used. We use facial expressions, tone of voice, gestures and eye-contact to communicate so much more than what is said just using words. That is why when writing text messages we use capitals to emphasise a point we are making and sometimes we use emojis to let others know how we're feeling.

Social communication

We use communication skills in all we do, to think, to learn and to socialise. The communication skills used to interact with others are known as social communication skills. These are the skills we use to develop and maintain friendships and to stay socially connected with others. We use them to negotiate, to be assertive and to make friends and keep friends. These skills let others know that we are interested in them and want to make a connection with them.

To be part of society and feel connected with others, we develop and then build our relationships. We have relationships within our families, our friendship groups, our classmates, teammates and when we grow up in our workplaces and many other roles. We are connected with many people by the way we communicate with them and that includes social media and using technologies to communicate when we cannot communicate face-to-face.

Communication Difficulties, ADHD and other Mental Health Issues

Many children and young people diagnosed with ADHD and other emotional, behavioural and mental health needs, experience difficulties communicating with others and connecting with others socially. Developmental language difficulties and learning difficulties are common with a diagnosis of ADHD but are often undiagnosed. Language difficulties are often 'hidden' as the child or young person may seem to be variable in the way they understand information and appear to be able to communicate in some situations but often not as well as their peers. Language difficulties often affect academic achievement. Learning difficulties or learning disorders may also occur.

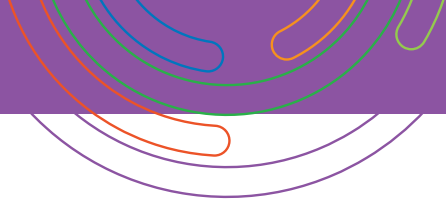
Developmental Language Disorder

Formal assessment by a speech pathologist is required to diagnose Developmental Language Disorder (DLD). Over 80% of children with an identified behavioural or emotional disorder have an unidentified communication difficulty (prior to being specifically assessed by a speech pathologist). The focus of children with behavioural difficulties is often on their externalising behaviours rather than the underlying cause for their difficulties.

Behaviours linked to communication difficulties

Symptoms of language impairment can often be mistaken for inappropriate or even 'bad' behaviour (see also Chapter 2 for further information on behaviour). Children and young people with ADHD are often seen to be 'non-compliant', but this may reflect a lack of understanding of expectations. Children with ADHD are frequently reported to be rude. This can often be a response to frustration, embarrassment or low self-esteem. Others may try to hide their difficulties by being the class clown. Inattentiveness may be due to difficulties with attention, but can also be due to the child switching off or tuning





out because they are unable to follow and understand what is being discussed in the classroom. Lack of motivation to complete set classroom tasks or homework is also common for individuals with ADHD but again may be affected by a difficulty understanding task explanations or a difficulty expressing what they know. These difficulties are often made worse when literacy difficulties are also present. Language difficulties, cognitive weaknesses and attention difficulties can have a significant impact on a child's learning in the early school years. This can result in significant gaps in learning.

Identification of communication difficulties in older children and adolescents

Some children are not diagnosed with a Developmental Language Disorder until later in primary school or even high school. Difficulties became more apparent as the gap between them and their peers widens and also the language demands in the classroom with regard to their learning increase. Often the language demands in social life increase as the rules in games and social exchanges become more complex, more subtle and may frequently change. The topics discussed become broader as children's experiences and awareness and understanding of topics widen and they read information for themselves in books and on the internet as well as access documentaries and visual information online.

Unfortunately, children with Developmental Language Disorder are at increased risk of failing academically as well as being diagnosed with mental health problems. Anxiety, depression, low self-esteem and being targets for bullies are known to occur. Young people with a Developmental Language Disorder are also over-represented in the youth justice system. Decreased academic achievement can result in reduced education, training and future employment options.

What now?

So is it all bad news? No! Children and young people with communication difficulties will and do progress through childhood, through school and also through life in general. What is of significant help, is that their difficulties are identified and recognised as early as possible (but it's never too late) and they have consistent, ongoing and appropriate support for their needs provided to them.

Some key points to consider:

- Vocabulary may need to be explained (don't take for granted that they have full understanding of the vocabulary used when a new topic is introduced at school).
- Instructions and important information may need to be repeated or supported with visual resources. Check to make sure they have understood what you expect of them.
- They may need assistance to help plan their written work and how to write down what they know in meaningful chunks.
- They may take longer to become independent in doing school work or they may never be fully independent, but this does not mean that they cannot learn and develop skills and knowledge.
- High school students may be able to access assistive technology, such as computers to help them read and write. They may also be able to access increased reading time when sitting exams.

Chapter 5

What is Sensory Processing?

Sensory processing refers to the ability to 'take in' and make sense of information from the environment around us. This process starts in our senses, where information from our environment is captured – for example noises, movement and smells. Our brain then organises and responds to this information to help us learn, talk, move, think, attend and behave. The way we see and perceive the world is unique – we all feel sensations at different intensities. These preferences can lead us to developing habits around preferred foods, learning styles and sleeping preferences. There are some sensations we like and seek out, and others we dislike and avoid. There are seven senses involved in sensory processing – five are external senses and two are internal:

External

- **Auditory:** Noise heard from our ears.
- **Olfactory:** Smells from our nose.
- **Visual:** Light, colours, contrasts seen with eyes.
- **Tactile:** Light touch, temperature and pain felt on our skin.
- **Taste:** Tastes from our tongue.

Internal

- **Proprioceptive:** Information on our body position which is received from joints muscles and bones (deep pressure touch).
- **Vestibular:** Body movement information received from our inner ears.

Sensory Input

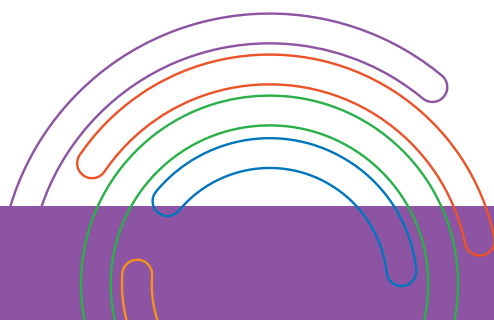
- Sight, sound, taste, touch, smell, movement, body awareness

Modulation

- Registers information
- Organises information
- Filters out relevant information
- Integrates information
- Stores information

Reaction

- Person makes a meaningful motor, language, behavioural or emotional response





Responding to our Senses

People have different limits for noticing and responding to different sensations. We all have different thresholds for sensations, and different ways in which we respond to these thresholds.

People with a high threshold for sensations will only feel a little when given lots of input – for example they may prefer strong tasting foods as other foods taste bland. We often refer to people having high thresholds as ‘big cup’ people, where they need lots of information to fill their cup before they begin to notice.

There are two types of ways we can respond to having a high threshold for sensations:

- **Sensation Seeking:** Children who are sensation seekers are active and continuously engaged in their environments. Their seeking behaviours interfere with their everyday performance, as they often fidget, are constantly on the move, and like to be noisy. These children have a high threshold to sensory information and actively engage in behaviours to meet this threshold.
- **Low Registration:** Children who have poor registration may act as if they are overly tired all the time or have trouble getting up in the morning. They can appear uninterested in activities and will often have low motivation to problem solve or change environments for their benefit. These people have a high threshold to sensory information, but do not actively self-regulate and are passive in their reactions.

There are two types of ways we can respond to having a low threshold for sensations:

People with a low threshold have a smaller cup for sensations, which makes a little feel like a lot of input. For example, they may prefer quiet spaces to loud environments. This can often lead to sensory overload.

- **Sensory Avoiding:** People who are sensory avoiders experience an overload of stimulation, and this can be uncomfortable for them. They develop strategies to avoid this, such as withdrawal, or they may develop daily rituals, which cannot be changed, or they may appear stubborn and controlling. These children actively engage in behaviours to avoid going over their low threshold.
- **Sensory Sensitivity:** Children who have sensitivity to stimuli appear as distractible, and have difficulty filtering input from their environment. They have difficulty maintaining attention, and can become upset with their own difficulty keeping on task, or with others who interrupt them. These children are passive in their response to sensation preferences, which may often lead them to feeling overwhelmed by their environment but not engaging in behaviours to help them feel better.

Sensory Processing and ADHD

Attentional difficulties relating to ADHD can impact on how we process the information we receive from our senses. These attentional differences can impact any part of the processing sequence shown in the diagram on page 1. These differences may be hard for the child to manage or control, which at times can lead to emotional dysregulation, or inattentive periods. Children with ADHD can have differences in all four of the sensory



based responses listed above, but are most likely to have differences in sensory seeking type behaviours (e.g. fidgeting, humming, and moving). Some of the sensory processing difficulties that are common in children with ADHD and sensory processing difficulties are:

- **Difficulties filtering auditory input**, e.g. when requiring to focus on verbal instructions – the child may instead focus on the overhead fan hum or bird noises outside. Some children may hum or talk to try and drown out background noise.
- **Lack of spatial awareness**, e.g. bumping into objects within their environment which they may have seen but not registered (e.g. chairs, desks, tripping on flooring changes).
- **Movement seeking**, e.g. fidgeting and swinging legs while working. This might help the child to focus on their work instead of thinking about their uncomfortable and restless muscles.

It is important to note here that people who do not have ADHD can also experience similar difficulties at times, but may be able to recover and regain their focus quickly. For a child with ADHD and sensory processing difficulties, the ability to recover and regain control of what sensations they are focusing on can often be difficult. In some situations this may be an easy process, but rarely consistent or predictable. These inconsistencies can become frustrating and overwhelming, and often impact on how children socialise, react emotionally, learn and behave.

Strategies to assist with Sensory Processing

Developing an understanding of sensory preferences and problem solving

Supporting your child to identify specific sensations and environments that bother or distract them is a great skill to begin with when targeting sensory processing. Looking at each environment individually is important as a noise may be distracting in one specific environment, but not as distracting in another. An Occupational Therapist can support

you in developing this awareness by completing a sensory assessment. It is important to consider where and when your child consistently feels calm, their preferred learning strategies, and activities that always help them to calm down when dysregulated or overwhelmed. Sometimes it can also be helpful to think of your own sensory preferences as a parent or child support. This will help develop understanding of how spaces you share with the child can be set up to meet both of your needs. This will help keep you both calm while engaging in activities and interacting. Here's an example:

Breakfast	Supporting Sensory input	Challenging Sensory input
Ben (child)	<ul style="list-style-type: none"> • Movement e.g. leg swing • Fiddling • Strong sweet tastes 	<ul style="list-style-type: none"> • Noise • Visually distracting environments • Bright lights
Jenny (Mother)	<ul style="list-style-type: none"> • Natural light • Morning news on via TV 	<ul style="list-style-type: none"> • Strong smells • Hearing spoon scraping, loud chewing

Breakfast environment to compliment both preferences:

Movement: Trial “move n sit” cushion to move on for Ben – this won’t make too much noise.

Tactile: Tape textures under the table at Ben’s spot e.g. bubble paper, give him a textured placemat that is not too bright in colour.

Incorporate cold, sweet foods into Ben’s breakfast – Cold foods have lower levels of smell (mother dislikes smells). E.g. Strawberry smoothie – this also eliminates cutlery which makes scraping noise.

Seating: Sit Ben away from the natural light source, preferably facing the opposite direction so it is not so bright. Mother can face light.

News: Listen to the news via a less visual source e.g. radio or phone (with screen not showing). Prepare Ben for the news and give time limits to when this is listened to so he knows there is an end point. Trial headphones for short periods of meal (e.g. mother to listen to radio, or Ben to use while mother is hearing news).



Practical strategies for teachers and parents

Carers, family members and educational supports can help a child problem solve ways to increase or decrease exposure to certain sensory sensations throughout their day. It is recommended that a 'just right' challenge is achieved, as usually we are unable to completely eliminate sensory challenges, but by adding in some coping strategies or elements to our environment we might make it easier for the child to engage and remain calm. Some examples of practical strategies for the 4 sensory responses are listed below:

Sensory Seeking: Incorporate movement breaks with rhythmical, predictable movement or heavy work into your day. Add tactile and movement opportunities to the child's learning space - e.g. turf or bubble wrap under the table, theraband on chair legs to swing legs off.

Low Registration: Increase visual cue intensity (e.g. coloured, bolded, larger lettering), add texture to objects to increase awareness (e.g. textured pencils), vary seating positioning throughout the day (e.g. desk sitting, to floor laying, to completing work on the wall while sitting on gym ball).

Sensory Avoidant: Prepare the child for unenjoyable activities and ensure there is a time limit or end point identified. Allow the child to access resources to limit sensation exposure if required - e.g. noise cancelling headphones, gloves in art based activities, shoes on grass or sand.

Sensory Sensitivity: Use deep pressure rather than light touch (e.g. head massage prior to hair brushing or tight clothes instead of loose), place belongings in cupboards or drawers and only have essential items on their desk, introduce new sensations gradually.

What if nothing works?

1. **Incorporate general regulating strategies into your day:** Deep pressure can support everyone to reach their optimum level of focus - whether we are under or over stimulated. Deep breathing can also support regulation - when we focus on breathing into our belly and making our out-breath longer than our in-breath; it can help us feel calmer by slowing our heart rate and providing us with internal deep pressure. Because of this, these activities are great for the whole class or family to engage in together each day. This will help your child maintain baseline functioning for as much of their day as possible. Completing these types of activities for a longer time period in the morning is recommended, as well as a few shorter breaks throughout the day.
2. **Goal setting:** it is recommended that you try working towards smaller; specific **SMART** (Specific, Measurable, Achievable, Relevant, Time-bound) based goals (e.g., start with wearing socks and shoes to school instead of all day, or remaining seated for 10 minutes instead of for a whole meal). A useful tool that may help you to break bigger goals down, and identify tools to overcome the sensory challenges is the 'Bridging the Gap' goal setting visual - this is available online. The child, parent and any other supports can all be allocated tasks or responsibilities to work on which will help to achieve each small goal.
3. **Shift your focus:** If your child is finding it challenging to implement their calming tools and strategies relating to sensory preferences, shift your focus to modifying the environment and task around the child:
 - a. **Modify the environment** - e.g. Close the blinds, remove posters, replace chairs with gym balls to sit on. Complete the task in a different space more suited to the child (e.g. quieter).
 - b. **Task modifications** - e.g. Change the time of day the task is completed, change the way the instructions are given (from verbal to visual), change the length of time given to complete the task (to be longer and include breaks).
- 4) **Empower the child:** If your child is finding it challenging to self-regulate when overwhelmed by environments or tasks, empower them to ask for and accept help from those around them. Build on your child's awareness of body clues - for children who are more visual, pictorial thermometers or speedometers are great tools to help them learn to tune into their body 'speed' or energy levels. Support your child to link these differences to certain sensations and activities. Help your child to develop assertiveness and communication strategies to let people around them know how they are feeling – e.g. role play conversations in advance, or create cue cards they can hand to people when they are feeling under or overstimulated. Letting others know what is making them feel dysregulated will help the child to be supported appropriately.





Additional resources to assist with Sensory Processing

1. **Occupational Therapy** - Occupational therapists can support children to better understand their sensory profile and implement strategies into their day that support regulation. Children can access Occupational therapy through the following:
 - a. Self-referral to your local child development service for assistance with sensory processing difficulties here (Perth WA only): <https://ww2.health.wa.gov.au/About-us/Child-and-Adolescent-Health-Service/Child-and-Adolescent-Community-Health/Child-development-service>
 - b. Medicare rebates may be available through (with referral from a GP): Chronic Disease Management (CDM) and Mental health care plans (only eligible for BAMHs endorsed occupational therapists)
 - c. Via the National Disability Insurance Scheme (NDIS), if eligible.
 - d. Via private health benefit funds
 - e. You can find a list of government, non-government and private occupational therapists in WA here: <https://dotwa.org.au/>
 - f. You can find a list of Better Access to Mental Health (BAMH) endorsed OTs here: <https://www.otaus.com.au/find-an-ot>
2. **Informative workshops and websites** cover useful information and strategies about managing sensory processing difficulties:
 - a. CAHDS Sensory Processing Parent Information Session
 - b. Traffic Jam in my brain seminar – www.sensorytools.net
 - c. How Does Your Engine run Program – www.alertprogram.com/
 - d. SPD Australia - <https://spdaustralia.com.au/spd-foundation/>
- 3) **Helpful books and therapy program** can provide assistance to parents and teachers with the management of sensory processing:
 - a. The Out of Sync Child & The Out of Sync Child has Fun – Carol Stock Kranowitz
 - b. Raising a Sensory Smart Child, the Definitive Handbook for Helping Your Child with Sensory Processing Issues – Lindsey Biel and Nancy Peske
 - c. Sense-ational Mealtimes – Gillian Griffiths and Denise Stapleton
 - d. Sensational Kids – Lucy Jane Miller
- 4) **Tools and resources** to support sensory needs can be purchased from the following:
 - a. Calming Kids(Perth Based) - www.calmingkids.com.au
 - b. Skill Builders(Perth based) - www.skillbuilders.com.au/products
 - c. Sensory Tools – www.sensorytools.net
 - d. My Diffability Australia – www.mydiffability.com.au
 - e. The Therapy Store – www.thetherapystore.com.au
 - f. Sensory Calm – www.sensorycalm.com.au
 - g. Calming Moments – www.calmingmoments.com.au

Chapter 6

Sleep and ADHD

Why is sleep important?

Sleep is important as it gives your body and mind time to rest after a busy day. It helps a child's body to recharge so that they have enough energy to complete tasks, think clearly, concentrate and stay alert.

ADHD and Sleep:

Many children and young people with ADHD have difficulty with sleep. They can have trouble with

- getting to sleep
- staying asleep
- daytime sleepiness
- be restless sleepers
 - get woken by noises
 - toss and turn
 - wake up tired not looking rested creating a sleep debt as they are not sleeping enough - this can look like sleep deprivation

Teenagers and sleep

Being a teenager can also make it more difficult to sleep. Teenagers need more sleep but they may have poor sleep habits. Activities that teenagers do during the day can affect their sleep.

- Teenagers often go to bed later and wake up late. This can lead to sleep reversal (e.g., sleeping during the day and staying up all night).
- Drinking energy drinks which contain a lot of caffeine.
- Using electronics and talking to friends late at night.
- Sleep habits

Problems with sleep can make ADHD symptoms worse. It can even make children without ADHD look like they have ADHD. Poor sleep can make it even more difficult for children and young people with ADHD to:

- concentrate
- cope with day to day tasks
- be calm

- have stable mood
- complete school work
- problem-solve
- stay on task
- remember things.

Common reasons children have trouble falling asleep:

- Difficulty settling down at night – physical (need to move; get energy bursts) and mental restlessness (busy brain they can't shut off)
- Mental health issues such as depression, anxiety, trauma
- Recent use of electronic devices
- Fear of going to sleep
- Not wanting to go to bed (e.g., fear, pain)
- Sensory (e.g., too hot)
- Nightmares
- Toileting issues (e.g., bed wetting)
- Medication side effects
- Sleep disorders such as sleep apnoea (which can include loud snoring, choking/gasping noises) restless leg syndrome, narcolepsy, periodic limb movement disorder

Strategies to assist with sleep problems and ADHD

Difficulties with sleep can have a negative impact on good health and development so establishing a good sleep routine is an important key to wellbeing. These strategies are known to be effective.

Behavioural sleep strategies

Going to bed

- Practise good “sleep hygiene”
 - Go to bed and wake up at the same time
 - No screens an hour before bed
 - Have a warm shower or bath before bed
 - This can help increase your sleepiness as body temperature drops when you sleep,
 - Use bedroom only for sleeping. If possible, have play and homework areas in other parts of the house
 - Have a consistent and clear bed time routine (e.g., quiet time before bed)
- Ensure the child has what they need (e.g., a drink; gone to toilet)
- Reinforce positive behaviours (e.g., putting pyjamas on; reading before bed)
- Reduce attention to behaviours children use to avoid sleep (e.g., frequently getting out of bed; calling out)
- Monitor sleep (e.g., use a sleep diary) to see if there is any patterns that might explain sleep problems



- Manage the sleep environment (e.g., quiet and uncluttered sleep area)
- Alter environment to help sleep
- If your child needs a night light or uses a lamp use warm' white light, rather than a 'cold' or bright 'blue' light
- No non-age appropriate naps during the day. It is better to be active during the day even if your child is tired. This will help with sleeping at night
- If your child is still awake after one hour suggest getting up for a short while to read to re-set sleep
- Try relaxation strategies to help your child settle
<https://raisingchildren.net.au/toddlers/parenting-in-pictures/sleep-relaxation>

Staying asleep

- Make sure the room is dark and quiet
 - Some children may need a night light to help them sleep
- Don't keep checking the time as this may make children worry more that they are not asleep





Medication for sleep

Medications for sleep should only be used when the above strategies have been tried and are ineffective. Sleep difficulties in children with ADHD may be due to the effect of the disorder itself, a side effect of stimulant medications or due to another co-occurring mental disorder such as anxiety or depression.

A thorough evaluation of any sleep difficulties can be undertaken by your doctor. They will usually look for primary sleep disorders (where the sleep difficulties are inherent and not due to another condition) and medical conditions that may be resulting in sleep difficulties. As part of this evaluation your child may be referred for a specialist evaluation in a sleep clinic and may need to undergo a sleep study.

In most instances, the sleep difficulty in ADHD is usually due to the condition itself or a side effect of stimulant medications. If the reason is thought to be a side effect of the medications, your doctor will consider if the medication is still the best one for your child.

After a thorough evaluation, your doctor may decide that all other methods (sleep hygiene described above, altering of medications etc) have failed and that your child may need a medication to assist with their sleep.

Melatonin is the most common medication used to assist with difficulty falling asleep when this is a side effect of stimulant medications. It is available in a prescribed formulation (Circadin) or as over the counter supplements. Over the counter formulations are difficult to assess/ advice for effectiveness as they are not usually standardised.

Usually if all other methods described have failed, your child may need the prescribed formulation. Circadin is available as a 2mg tablet and the usual recommended dose is 1 tablet at night an hour before bedtime. The dosage can be increased to up to 3 tablets (6mg) at night although it is unclear if higher doses are more beneficial. The tablet should not be chewed or crushed. Precautions should be taken in case of drowsiness during the day, if that occurs.

Clonidine is a medication that may be used to assist with sleep difficulties. It is also beneficial for symptoms of ADHD.

Medications such as Zopiclone are not recommended for use in children. It would be highly unusual for medications such as Diazepam to be used in children for sleep difficulties and must only be done under the advice of a qualified healthcare professional.

What to do if sleep problems persist?

- Remember that it is important to treat and address other issues that may be impacting on sleep (e.g., low mood; anxiety)
- You may be referred by your doctor to a sleep clinic for further assessment and evaluation.

Chapter 7

Medications in ADHD



Medications for the treatment of ADHD were discovered by chance in the 1930's by a psychiatrist Charles Bradley from Rhode Island, USA. He administered amphetamines to 'problem children' in the hospital who suffered from headaches due to a medical procedure. The procedure was conducted on them to understand the cause of their behaviour difficulties. While the intent of the amphetamines was to help reduce the headaches, he noted unexpected improvements in their behaviour, school performance, and social and emotional interactions. This chance discovery was ignored for more than 25 years before amphetamines began to be regularly used for ADHD.

Medications to treat ADHD have become increasingly common over the years and have been well researched in this time. Interestingly, while most medications for psychiatric disorders in children were initially developed for adults and then subsequently used in children (many without specific research done in children), medications for ADHD were first developed for children and have been extensively researched in this age group.

The most well-known of these studies is called the MTA (Multimodal Treatment of ADHD) study conducted in several hospitals in USA and Canada in the 1990's (The MTA Cooperative, 1999). The original study compared treatment with medication (Methylphenidate- commonly known as Ritalin) and treatment with behaviour therapy and a combination of the two over a 14 month period. This study found that medication treatment alone and combination treatment with medications and behaviour therapy were both significantly better than treatment with behaviour therapy alone (Further information available [here](#); MTA, 2009). In the longer term, (over 6-8 years), the advantage conferred by medications was not significant, suggesting that the use of medications in the long term must be reviewed periodically.

While the results of the study were favourable for medications in general, they may not hold true for every child. Every child with suspected symptoms of ADHD must be evaluated by a qualified professional (a Paediatrician or a Child and Adolescent Psychiatrist) to determine the best treatment for them. Whether a child with ADHD will benefit from medications depends on a number of factors such as accurate diagnosis, other diagnoses that may exist alongside ADHD, any medical conditions in the child or family and allergies, to name a few. Combining medications with behaviour therapies is likely to result in greater improvement in academic performance, emotional symptoms and social relationships and must always be considered in the treatment of ADHD (National Institute for Health Care Excellence [NICE], 2018).

Medications for ADHD

Medications used for the treatment of ADHD can be grouped into two broad categories: Stimulant medications and non-stimulant medications. We will only discuss the current medications available in Australia.

Stimulant medications include methylphenidate, dexamphetamine and lisdexamphetamine. Short acting forms of medications usually work for about 3-4 hours per dose. The long acting forms of medications work for approximately 8-12 hours per dose. These are general parameters and they vary between children and depend on the exact medication (brand) being used.

Methylphenidate - In Australia, this is marketed in short acting forms (Ritalin and Artige-10mg per tablet) and long acting forms (Concerta and Ritalin LA). Concerta is available as tablets in strengths of 18mg, 27mg, 36mg and 54mg. Ritalin LA is available as capsules in strengths of 10mg, 20mg, 30mg, 40mg and 60mg.

Dexamphetamine - In Australia, this is available in the short acting form as a 5mg tablet.

Lisdexamphetamine - In Australia, this is available as Vyvanse capsules in strengths of 20mg, 30mg, 40mg, 50mg and 70mg. This is a long acting medication to be taken once a day. It is an inactive component that is gradually converted to dexamphetamine in the body.

Points to note:

- Stimulant medications are considered the first choice medications for the treatment of ADHD
- They have been available for decades and are all approved for the treatment of ADHD in children
- They benefit about 70-80% of children with ADHD



- They work by increasing the levels of dopamine and norepinephrine in certain areas of the brain. This is believed to improve the functioning of those brain areas resulting in improvement in symptoms of ADHD.
- Some children respond well to methylphenidate and others to dexamphetamine. It is difficult to know which medication a child will respond to but most doctors use methylphenidate as the first choice medication for treatment of ADHD.

Non stimulant medications include Atomoxetine, Clonidine and Guanfacine. These medications are generally thought to be effective over a prolonged period of time (up to 24 hours), other than Clonidine which is effective for 4-6 hours. Clomipramine and other medications in its class were previously used for treatment for ADHD but are no longer routinely recommended due to their significant side effects.

Atomoxetine is marketed as Strattera and is available as capsules in strengths of 10mg, 18mg, 25mg, 40mg, 60mg, 80mg and 100mg. Atomoxetine is also believed to increase the levels of dopamine in certain brain areas but does this in a different way to stimulant medications.

Clonidine (often marketed as Catapres) is available as tablets in strengths of 100 micrograms and 150 micrograms. It is essentially a medication used for high blood pressure but has also been shown to be effective in ADHD. It is only available in its short acting version and the extended release form of Clonidine is not available in Australia.

Guanfacine is chemically related to Clonidine but is used specifically for the treatment of ADHD and is marketed as Intuniv tablets in strengths of 1mg, 2mg, 3mg and 4mg.

Clonidine and Guanfacine work on different receptors called alpha-2 receptors in the brain.

Non stimulant medications are usually used when either stimulant medication does not work or when there are significant side effects with stimulant medications. Non stimulant medications also have side effects and these will need to be carefully considered before starting medications.

Points to note:

- Whatever the choice of medication, most doctors will start at a low dose and gradually increase the dose of medications.
- The dose of the medication does not depend on weight, gender or age but on how well your child responds to the medications. This depends on how the medication is absorbed and processed by the body and differs for each child.
- Careful monitoring is required and doctors will consider a number of issues before starting medications.
- While it is not necessary for every child, in some situations your doctor may require blood tests and an ECG (heart tracing) prior to starting medications.
- For appropriate dose adjustment, your doctor will need to know whether there have been improvements in all areas including at home and school. Reports from the school teacher are usually beneficial when considering making dose adjustments.
- Your doctor will monitor your child's height, weight, pulse and blood pressure on a regular basis while your child is taking medications.



Side effects of medications

Side effects vary depending on the type of medications. Not all side effects are discussed here. Please discuss with your doctor if you observe any symptoms that you consider to be a side effect of your medications. The product information sheet that comes with your medication is a very useful source of information and you should keep it handy for reference.

Stimulant medications

Decreased appetite - This is a common side effect of all stimulant medications. Your child will likely graze on foods during the day while under the effect of stimulant medication. Encouraging a good breakfast before the morning dose of the medication and a good dinner at the end of the day will ensure that they get a reasonable intake of calories and nutrients during the day. If your child is losing weight consistently while on stimulant medications, your doctor may suggest 'medication breaks' - i.e., only taking the medication on school days. If their appetite is significantly decreased, your doctor may suggest a different medication.

Trouble sleeping - This is a common side effect of all stimulant medications. This is usually seen as trouble falling asleep on time or less commonly, trouble due to frequent waking up at night. Your doctor will likely advise not to take the medication after 2 – 3pm. If you forget a dose and remember it after this time, it is usually best to avoid taking the medication that day and returning to your child's regular schedule the next day.

Feeling anxious or nervous - This is another common side effect but usually only lasts for a few weeks while the body is getting used to the medication. If this persists or is severe, your doctor may need to adjust the dose of the medication or occasionally, discontinue the medication.

Effect on growth - The medication may result in slowing down of your child's growth (height and weight). As mentioned above, your doctor will monitor this by checking your child's height and weight regularly. Your doctor may advise medication breaks. If this persists, they may change the medication.

Change in mood/emotional dysregulation/aggression - As noted above, some level of anxiety is common when a medication is started and usually settles down with time. However, occasionally, some children experience significant mood swings and aggression when on the medications. If this happens, your doctor will usually adjust the dose of the medication but if it persists or is significant, the medication may need to be changed.

Other common side effects include nausea, cough or sore throat, dizziness and a high pulse rate.

Other side effects include abnormal blood pressure, tics, blurred vision, muscle cramps, amongst others.

Rare but serious adverse effects

- Psychotic symptoms
- Suicidal ideations
- Seizures

If your child experiences any of the above, you must seek immediate medical attention.



Non stimulant medications

Atomoxetine may lead to:

- Suicidal ideations - this will require close monitoring. Immediate medical attention will need to be sought if this occurs
- Jaundice or liver damage
- Constipation - eating a high fibre diet and drinking plenty of fluids is advised
- Other side effects include poor appetite, sleep disturbances, dizziness and fatigue. It may also cause increased anger or aggression.
- If you notice a rash with Atomoxetine, you must stop taking Atomoxetine and seek medical attention immediately.

Clonidine

- Excessive sleepiness and fatigue
- Dizziness
- Dry mouth
- Lowering of heart rate or blood pressure- which may lead to fainting. The medication must not be stopped suddenly or it could lead to a rebound increase in blood pressure which may be fatal.
- Constipation
- Low mood

Guanfacine

- Excessive sleepiness - this is less common than for Clonidine but may still be experienced
- Difficulty sleeping
- Low heart rate or blood pressure – which may lead to fainting
- Weight gain
- Low mood

Conclusion

This is a brief overview of the medications for ADHD available in Australia. Further details about ADHD medication can be obtained from the TGA website (<https://www.ebs.tga.gov.au/>). Always consult your treating doctor before starting, changing or stopping any medications.



Chapter 8

Family Self-Care and ADHD

Why family self-care?

Family stress can preoccupy parents and wear down their patience. Stressful family environments can put family members at greater risk of physical and mental health problems. Parents often report certain times of the day or tasks that they find their stress levels increase (e.g., getting ready for school, shopping, bedtime). However, once the specific task or time is over parents' stress levels will tend to decrease. This may not be the case for parents and families of children with ADHD who often feel stressed throughout the day.

ADHD affects many aspects of a child's life (e.g., social, emotional, behavioural and learning difficulties). A child with ADHD will face many developmental challenges associated with their ADHD. In addition, many children with ADHD also have other mental health/ learning and developmental difficulties (e.g., depression, anxiety, learning difficulties, oppositional defiant disorder, conduct disorder, language difficulties, motor difficulties, tic disorders and executive functioning difficulties).

Caring for a child with ADHD places extra demands on parents above and beyond typical parenting demands (e.g., increased demands on finance, social and emotional resources, time). Children with ADHD also require ongoing support to address their challenges. These increased demands place additional stress on families and family relationships. This can compromise the coping and emotional well-being of family members and lead to increased mental health issues within the family. Parents may also find it difficult to manage their child's ADHD while trying to manage their own mental health and emotional well-being.

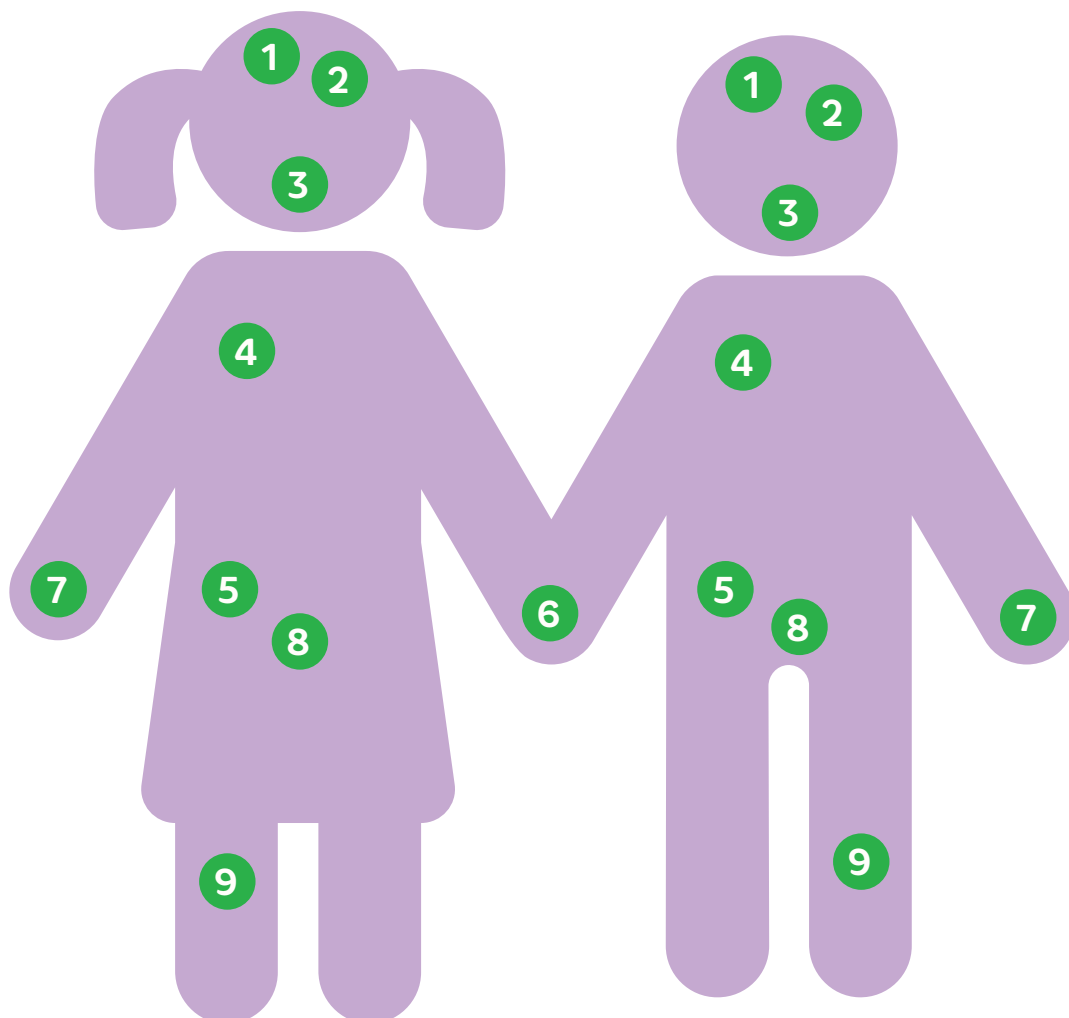
Having ADHD not only affects the child/young person with ADHD but the whole family. It is important to take time to address family and individual stress to be more effective in parenting and caring for a child's needs. When individuals are struggling to manage their own emotional needs they cannot care for their child as effectively as they would like.

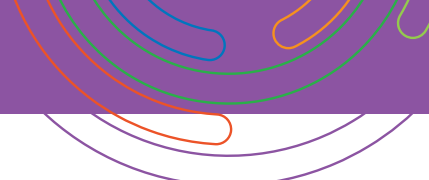
What happens when we feel stressed?

When we experience stress our sympathetic nervous system (survival brain) takes over to keep us "safe from a perceived threat". When this happens, our body experiences a physiological change as the 'survival brain' is activated to prepare the body to respond to a perceived threat. This is known as the fight, flight, freeze, faint response. When we are stressed our thinking abilities reduce. This limits our ability to problem-solve and regulate our emotions.

How our body reacts to stress is specific to each person. Everyone responds and experiences stress differently. Some common body responses are outlined in the figures below.

- 1 Feel dizzy or lightheaded as breathing becomes shallow and quicker so we can get more oxygen into our big muscles to fight or flight
- 2 Racing Thoughts – Makes it hard to focus on anything other than that you are in danger
- 3 Dry mouth as the body stops producing saliva to digest food as it prepares for fight or flight
- 4 Heart beats faster to get more blood to larger muscles
- 5 Adrenaline released to tell other body organs (e.g, heart) to get ready to fight or flight
- 6 Hands get cold as blood is going to major muscles
- 7 Body starts to sweat as this cools body if having to run away
- 8 feeling of needing to go to the toilet as body getting rid of extra “weight” to help you run/get out of danger faster
- 9 Muscles get tense as blood builds up and ready to run from danger





It is important to be aware of how your body responds to stress (physiologically, emotionally and cognitively). Increased awareness and early identification of your own stress reaction will help with how to address it before it becomes overwhelming.

Stress can be brief or ongoing. Chronic stress has a damaging effect on a person's sleep, physical and emotional well-being. Often chronic stress is unrecognised by the individual and may only be recognised when a person seeks medical or psychological treatment. Others may notice changes in a person's behaviour, mood and usual functioning before an individual notices that they are overwhelmed.

Strategies to assist with Family Self-Care

There are a number of strategies that might assist with managing family stress and enhancing family self-care. These strategies can be used to prevent our stress level from increasing.

Preventative stress management: managing daily stress

Be aware of the cumulative effects of the daily stressors of caring for a child with ADHD. A holistic approach that considers your needs (e.g., physical, cognitive, spiritual and emotional needs) can assist in managing daily stress and your emotional well-being. Having a balanced lifestyle that includes hobbies, socialising, and work in conjunction with caring for your child can help maintain a healthy lifestyle. This can be achieved by engaging in stress prevention strategies such as:

- regular exercise
- regular and sufficient sleep
- balanced diet
- engagement in pleasurable activities and interests
- membership to groups
- maintaining relationships/nurture social networks
- formal relaxation (e.g., yoga, meditation, mindfulness, progressive muscle relaxation, guided visualisation)
- positive self-talk or supportive mantras
- scheduling of pleasurable activities and interests outside of parenting duties (e.g., going to work, catch up with friends, shopping, exercise, date nights, attending sporting events, religious events)
- Scheduling parenting/family duties (e.g., family appointments, school meetings)

Effective stress prevention involves giving yourself permission to consider your own emotional well-being before you manage others' needs.


The principles of The Act Belong Commit campaign (<https://www.actbelongcommit.org.au/>) can assist with maintaining emotional well-being. Individuals are encouraged to engage in the three domains of: Act, Belong, and Commit to improve their mental health and wellbeing. Evidence shows that these three domains contribute to positive mental health. (https://www.actbelongcommit.org.au/assets/resources/factsheets/the_evidence_for_act-belong-commit.pdf)

Stress management strategies

Successful stress management incorporates strategies that address a person's physiological and emotional responses to stress. These management strategies can include using the preventative strategies and principles (listed previous page) as well additional strategies such as:

- Develop a coping plan prior to a difficult situation that identifies helpful strategies and thoughts.
- Use supportive networks to discuss stressful situations and experiences.
 - This is not about others solving the problem. It is about externalising emotions and problems to help process them. When stressful situations are discussed they can be processed more effectively as it moves from the “survival brain” into the cognitive/ thinking/problem-solving brain.
- Access helplines (e.g., Parenting Helpline; Mensline; Crisiscare; LifeLine)
- Acknowledge stress and limitations that may make it difficult to manage stress or a situation effectively at a particular time.
 - This may require ‘parking’ the problem, taking time away to do pleasurable and relaxing activities and then going back to address the problem with your ‘thinking brain’ rather than ‘survival brain’.
- Keep perspective and ‘pick your battles’.
 - Look at the bigger picture. Is the situation/issue worth the increased attention it is receiving or can it be ‘let go.’
- Review expectations for the parent and child
 - Are they realistic and developmentally appropriate for both the child and parent rather than idealised views of how things should be.





Managing stress effectively allows for better management of stressful and difficult situations, and support of others. However, over-reliance on specific activities that help assist in short-term management of stress can be unhelpful. This can include:

Strategy	Why it is not helpful
Busying self/avoidance Wishful thinking that the issue will go away.	Does not address or delays addressing the issue to help you accept or make sense of the situation. This can lead to overthinking and make an issue bigger than it is.
Substance/alcohol use	Can lead to masking stress. When the effects of these substances wear off the stress and the cause of the stress will return. Substance over-use can lead to further health issues.
Eating more or less	<p>Can lead to masking of stress. When the effects wear off the stress and the cause of the stress will return. Over - or under - eating can lead to further health issues.</p> <p>The body will sometimes crave high caloric foods as it is burning through energy due to the increase stress. This food may not be adequate to provide the nutritional needs for optimal emotional well-being.</p>
Drinking coffee/ caffeine drinks	This can give the impression of increased energy but is in fact mimicking the physiological response of stress (e.g., increased heart rate; physical arousal level) rather than increasing problem-solving and cognitive abilities.
Overexercising	Exercising in moderation helps to regulate some of the physiological needs. Over-exercising can lead to a reliance on the endorphins released for short-term relief. The underlying reasons for stress are not being addressed.
Social withdrawal	This limits our ability to belong and connect with others. This lessens the opportunity to access support and problem-solve. Being connected with others helps put things into perspective.



Seeking psychological intervention for stress

You may need to access psychological treatment for stress when your usual strategies to manage stress are ineffective and you are feeling overwhelmed. This could be accessed via:

- GP (via the Medicare Better Access Initiative)
- Employee Assistance Programs (if available)
- Community Health and Well-being services (e.g., Women's Health Services; "The Blokes Book" resource)
- Telephone Help Lines (e.g., Mensline Australia; Crisiscare; Lifeline; BeyondBlue)
- Private mental health professional (e.g., clinical psychologist, social worker, counsellor, and psychiatrist)

Treatment can assist in:

- reducing how long the stress lasts
- managing stress more effectively
- preventing increased stress in future.
- managing your stress effectively to assist you to help your child.

Additional resources to assist with Family Self-Care

Organisation: Wanslea

Details: Wanslea Children and Family services provide assistance in caring for your child and family

Contact: **Phone:** (08) 9245 2441

Fax: (08) 9245 2481

Email: support@wanslea.asn.au

Website: <https://www.wanslea.asn.au/children-and-family/>

Organisation: Communicare

Details: Communicare provides low cost support services to families and individuals

Contact: Refer to website for contact details of Communicare offices and programs across WA

Website: <https://www.communicare.org.au/>

Organisation: Centre for Clinical Interventions (CCI):

Details: CCI provide psychological therapy, research, professional training, and free resources for a variety of mental health disorders including eating disorders, anxiety related disorders, depression, and bipolar disorder

Contact: **Phone:** (08) 9227 4399

Fax: (08) 9328 5911

Email: info.cci@health.wa.gov.au

Website: <https://www.cci.health.wa.gov.au/>

The Bloke's Book: www.menshealthwa.org.au/wp-content/uploads/2016/10/The-Blokes-Book-2016.pdf

Lifeline: 13 11 14

Crisis Care: (08) 922 3111
1800 199 008 (country free call)

Beyondblue: 1300 22 4636 <https://www.beyondblue.org.au>



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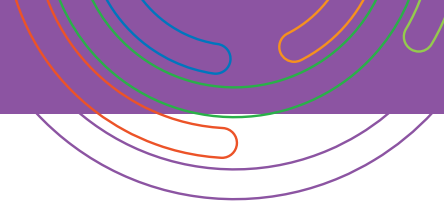
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Appendix 1

Recording sheet for identifying child's needs

Date/Time	What they did	My response/What I did





How I was feeling/My feeling response to what they did	Category it fits in (attention, power, revenge, display of inadequacy)	Other comments



Notes:

A series of horizontal lines for writing notes, spanning the width of the page.





Government of **Western Australia**
Child and Adolescent Health Service



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