



THE WORLD OF ADHD

An Educational Module on ADHD Awareness

Dr. Ruchi Gupta

Disclaimer

The information (including, without limitation, advice and recommendations) provided herein is intended solely as a general education aid. Always seek the advice of your physician or other qualified healthcare provider regarding any medical condition and before initiating any new treatment.

About the Author

Dr. Ruchi Gupta is a practicing psychiatrist and has been working extensively with children for the past 12 years. She obtained her medical degree MBBS from Karnataka Institute of Medical Science, Hubli, and also her Post-Graduate Training in Psychiatry from J.J.M.M.C, Davangere. She is trained in Child and Adolescent Psychiatry including mental handicap from NIMHANS, Bangalore. Dr Ruchi Gupta comes with a vast experience in managing clinical research and study. In her advisory capacity at schools, colleges and corporates; she identifies psychological problems and draws up a plan on how to deal with them. In addition, she also runs an independent charitable trust, Pratyasha Foundation, to render medical treatment, expertise, advice and assistance to the poor and needy who suffer from Specific Learning Difficulties (SLD), Autism Spectrum Disorder (ASD), and other individuals with Neurodevelopment disorders. Her areas of interest include Autism Spectrum Disorder-Diagnosis & Assessment, early intervention, soft skill training, enriching education and enabling employment in individuals with Autism.

Dr. Ruchi Gupta can be reached at:
pratyashafoundation@gmail.com

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Part I : Understanding ADHD

01 What is ADHD?

Attention Deficit Hyperactivity Disorder (ADHD) is a Neuro-Developmental disorder characterised by a display of inattention and/or hyperactivity-impulsivity that interferes with functioning or development of an individual.



- **Inattention** means that the individual has difficulty in staying focused, is disorganised, lacks persistence and these problems are not due to defiance or lack of comprehension.
- **Hyperactivity** means that the individual excessively moves about constantly, fidgets, taps or talks, is extremely restless, including situations in which such behaviour is not appropriate (for eg. during a class at school).
- **Impulsivity** means that the individual makes hasty or hurried decisions without thinking about them or their long term consequences. It may also mean an inability to delay gratification i.e. desire for immediate rewards. Such a person may socially intrude or interrupt others.

02 Types of ADHD

There are three subtypes of ADHD:

A. Predominantly inattentive.

The majority of symptoms fall under Inattention.

B. Predominantly hyperactive-impulsive.

The majority of symptoms are of Hyperactivity and impulsivity.

C. Combined.

The symptoms are a mix of inattentive symptoms and hyperactive-impulsive symptoms.



Additional issues

A child with ADHD has:

- Symptoms for at least six months.
- Several symptoms that negatively affect school, home life or relationships in more than one setting, such as at home and at school.
- Behaviors that aren't normal for children of the same age, who don't have ADHD.

03 Causes of ADHD

While the exact cause of attention-deficit/hyperactivity disorder is not clear, research efforts continue and factors that may be involved in the development of ADHD include:

- **Genetics** - ADHD can run in families, and studies indicate that genes may play a role.
- **Environment** - Certain environmental factors, such as lead exposure, may increase risk.
- **Development** - Problems with the central nervous system at key moments in development may play a role.

04 Common Symptoms of ADHD Noticed by Parents

Symptoms of Inattention

Doesn't pay attention to details.

Makes careless mistakes.

Has trouble staying focused; is easily distracted.

Appears not to listen when spoken to.

Has difficulty remembering things and following instructions.

Has trouble staying organized, planning ahead, and finishing projects.

Gets bored with a task before it's completed.

Frequently loses or misplaces homework, books, toys, or other items.

Symptoms of Hyperactivity

- Doesn't pay attention to details.
- Makes careless mistakes.
- Has trouble staying focused; is easily distracted.
- Appears not to listen when spoken to.
- Has difficulty remembering things and following instructions.
- Has trouble staying organized, planning ahead, and finishing projects.
- Gets bored with a task before it's completed.
- Frequently loses or misplaces homework, books, toys, or other items.



Symptoms of Impulsivity

- Because they censor themselves less than other kids do, they'll interrupt conversations, invade other people's space, ask irrelevant questions in class, make tactless observations, and ask overly personal questions.
- They also tend to be moody and to overreact emotionally. As a result, others may start to view the child as disrespectful, strange, or needy.



05 Common Symptoms of ADHD Told by Teachers to Parents

The child may show few or many of these behaviours:

- Is restless and exhibits out of seat behaviour.
- Doesn't pay attention to the teacher's words, directions and instructions.
- Starts to work independently in class, but gets distracted by other children.
- Starts off participating in a group task/project but then drifts off and stops contributing.
- Appears spaced out or lost in his/her own world when the class is in progress.
- Interrupts with questions or comments.
- Disturbs other children by talking during work time.
- Is argumentative and sometimes shows physical aggression towards others.
- Won't let other children talk and insists on being the one to talk.
- Doesn't know what items he/she is supposed to have for a class task or project.

Part II : The Path to Management

06 When to See the Mental Health Professional/Doctor?



There's no definitive diagnostic test for ADHD - no blood analysis, no brain scan, no genetic screening - so it's not easy to tell whether a child has the disorder. For some parents, the moment of realization comes when a teacher calls to say that the child is disruptive or falling behind academically. For others, it comes after they read an article, see something on TV, or hear about another child's diagnosis. Whatever triggers this realization, seek help at once. Without a prompt diagnosis, an ADHD child is apt to be branded "slow" or "lazy" (or worse), which can undermine self-esteem and lead to years of underachievement and family turmoil.

Treatment



Standard treatments for ADHD in children include medication, education, training and counseling. These treatments can relieve many symptoms of ADHD, but they don't cure it. Children with ADHD often benefit from behavior therapy and counseling from a psychiatrist, psychologist, or other mental health professional. Some children with ADHD may also have other conditions such as an anxiety disorder or depression; in these cases, counseling can help both issues.

Examples of therapy include:

Behavior therapy - Teachers and parents can learn behavior-changing strategies, such as token reward systems and timeouts, for dealing with difficult situations.

Psychotherapy - This allows older children with ADHD to talk about issues that bother them, explore negative behavioral patterns and learn ways to deal with their symptoms.

Pharmacotherapy - The following medications are effective for children with ADHD.

Stimulants

The right dose of drugs like [Methylphenidate](#) and [Dextroamphetamine](#) reduces hyperactivity and impulsivity, and improves physical coordination, focus, and the ability to learn. Side effects are few and often result from an incorrect dose. Common side effects include decreased appetite, insomnia, increased anxiety, irritability, and mild stomach aches or headaches.

Side effects of the stimulants are far and few, and often results due to incorrect dose. Higher doses result in greater side effects. Common side effects of stimulants are:

- Decreased appetite
- Insomnia
- Increased anxiety
- Irritability
- Mild stomach aches / headaches in some children

The following is a list of ADHD medications (Stimulants)-

Generic	Approved Age
Amphetamine	3 and older
Methylphenidate (long acting & extended release)	6 and older
Dextroamphetamine	3 and older
Dexmethylphenidate	6 and older
Methylphenidate	6 and older

Non-Stimulants

Non-stimulants affect the brain differently than stimulants. They might be used when stimulants prove ineffective or for a person who wants to avoid the side effects of stimulants. Some examples of non-stimulant medication are Atomoxetine, Clonidine, Guanfacine, etc.



Parenting skills training - This can help parents develop ways to understand and guide their child's behavior.

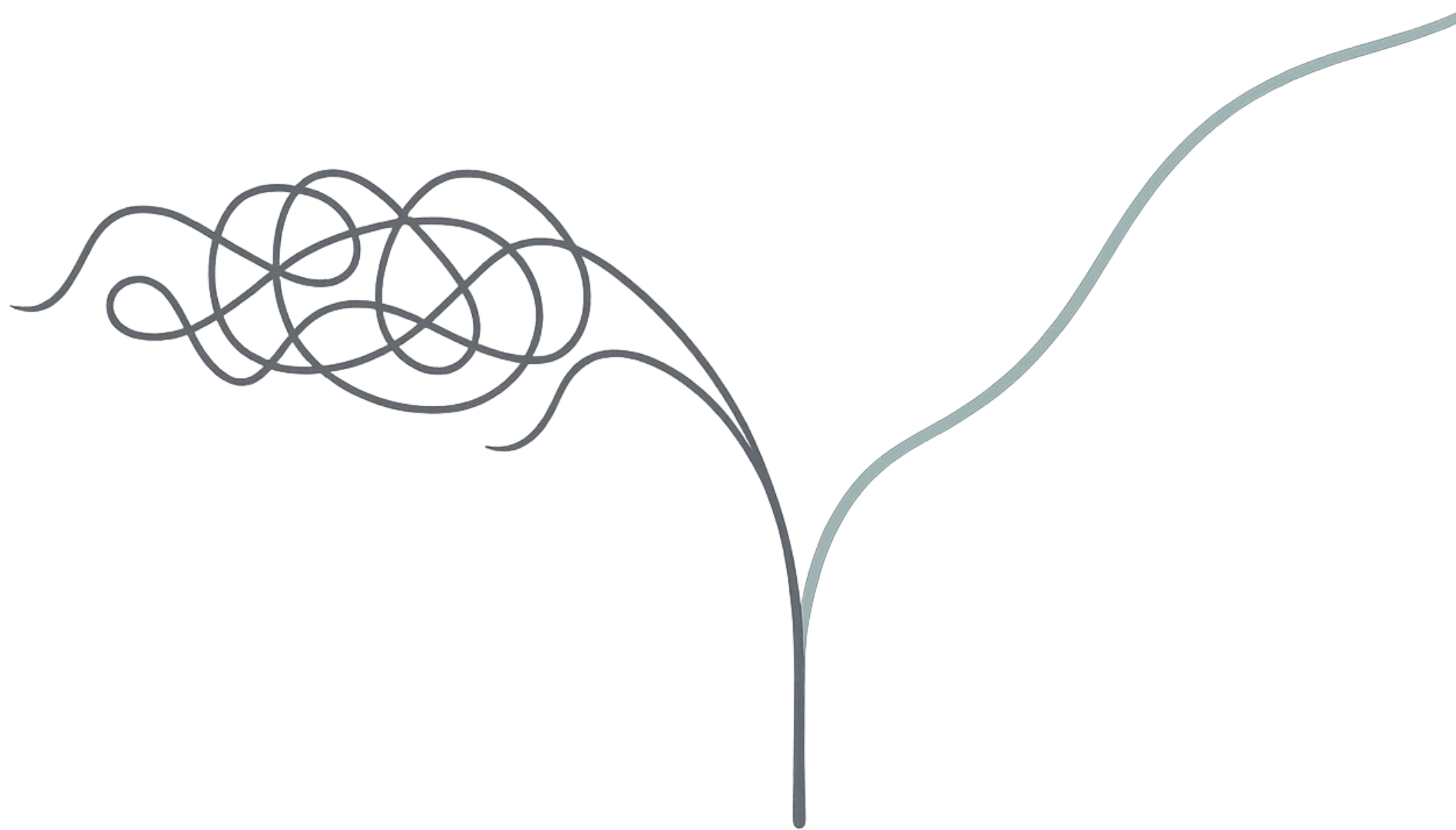
Family therapy - This can help parents and siblings deal with the stress of living with someone who has ADHD.

Social skills training - This can help children learn appropriate social behaviors.

Note: Side effects of Atomoxetine include upset stomach, decreased appetite, nausea or vomiting, dizziness, tiredness, and mood swings.

07 Consequences of Leaving Children with ADHD Untreated

When ADHD is left untreated, it negatively affects every area of life. The consequences include academic, social, and emotional problems in childhood which can continue into adulthood, leading to substance abuse, risk-taking, criminal behaviour, and impaired academic, job, and family performance.



Substance Abuse: Individuals with untreated ADHD are at an increased risk for substance use and abuse (alcohol, nicotine, illegal drugs) as a form of self-medication to deal with the distress associated with their symptoms.

Risk Taking Behaviour: The urge for novel stimulation can lead to risk-taking behaviours like speeding or rash driving, which may result in dangerous or fatal accidents. Medication for ADHD can reduce symptoms like inattention and impulsiveness that impair driving skills.

Criminal Behaviour: Due to impulsivity, individuals with untreated ADHD are more likely to be arrested and convicted for crimes like theft and robbery.

Academic Performance: Individuals with untreated ADHD are more likely to fail or be suspended from school and less likely to achieve higher education. Children with inattentive symptoms are often labelled “lazy” despite having average or good intelligence, which harms their self-esteem and academic performance.

Job Performance: Adults with ADHD are less likely to be employed and more likely to change jobs frequently due to poor time management and organizational skills.

Problematic Marital and Family relationships: ADHD symptoms interfere with personal relationships, reduce family cohesiveness, and put marriages at risk. Adults with ADHD are more likely to be separated or divorced. It can also lead to an unsuccessful parent-child relationship.

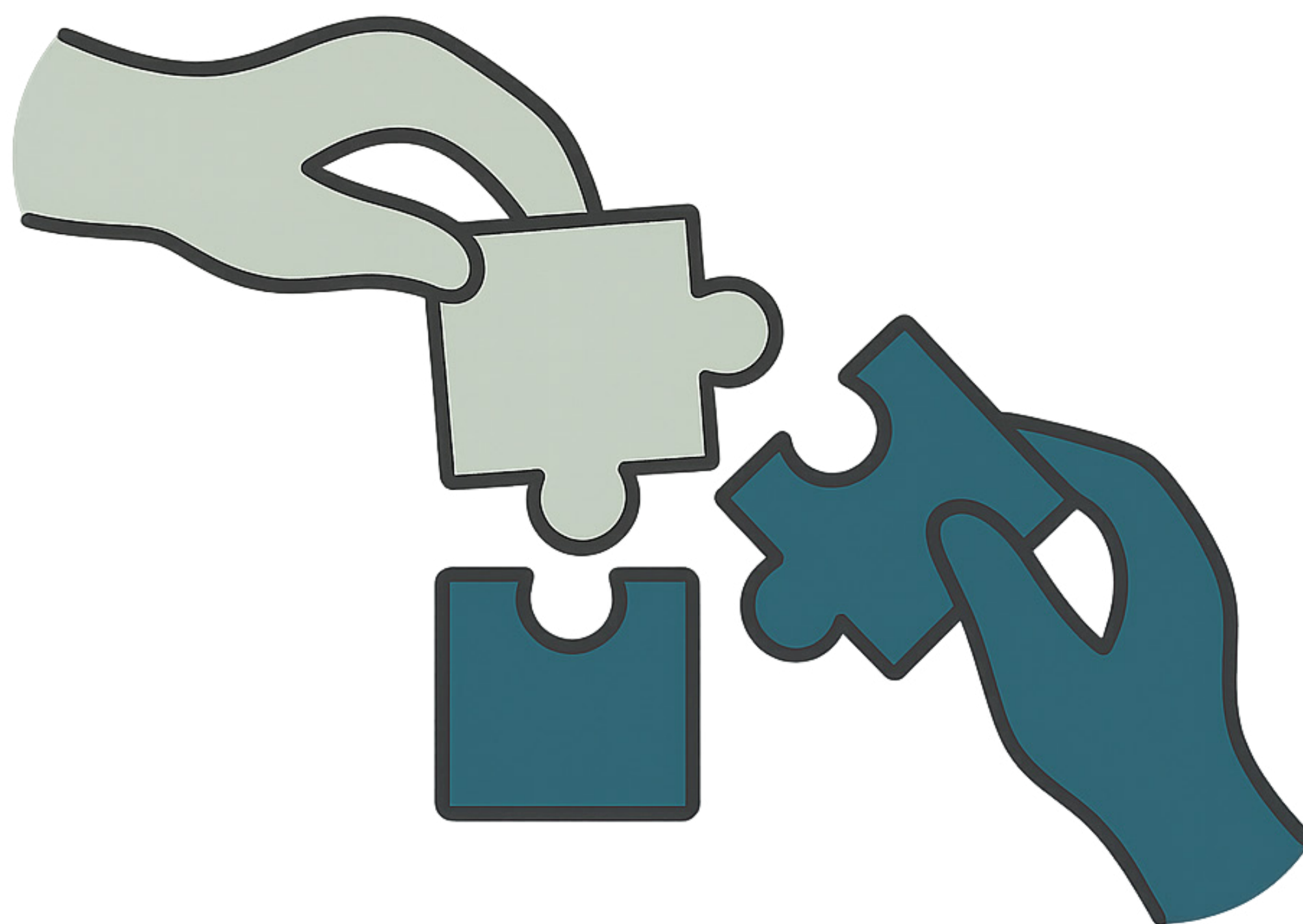
Part III : Everyday Strategies for Success

08 Activities at Home to Enhance a Child's Concentration and Attention

Setting for the Activities

Activities should be in a room without distractions like TV, gadgets, or loud noise. Use a table and chair of appropriate height, with only the items for the current activity on the table. The child should not be seated near a window.

Section 1: Mindful Moments & Focused Hands



Relaxation and Positive Imagery

Combining simple relaxation techniques such as deep breathing with positive visual imagery helps the brain to improve or learn new skills. So children can “imagine” that they are paying attention in class or are able to handle teasing, and this can in turn change their behavior at school. You and your child can use your own creativity and give this a try.

Mind-Body Integration

An example of this technique would be to have your child attempt to sit in a chair without moving. Record the time for how long the child is able to accomplish this. Repeated practice over several weeks will show improvement. Through this activity, the neural connections between the brain and body are strengthened, providing improved focus and self-control.

Grain Sorting

Present before the child a handfull of mixed grains (for eg. grains like that of rice, wheat, pulses, etc.) and instruct the child to sort the grains into different heaps, i.e. rice grains together separated from wheat grains together, separated from pulse grains together and so on.

Finger Games

The child is to use both hands and bring the thumb of one hand in contact with the forefinger of the other hand, let go and then bring the thumb of the second hand in contact with the forefinger of the first hand and continue repeating this quickly for a while. This game helps increase hand eye coordination and concentration.

Section 2: Brain Games & Pattern Puzzles

Opposites

This game requires the child to say the opposites. It increases their concentration along with adding to their vocabulary. For eg. opposite of fat will be thin, opposite of happy will be sad. But make sure that the words are those that the child has learnt and can answer.

Missing numbers

This game involves counting a sequence of numbers in which you deliberately skip a digit in the middle that your child will have to spot. For instance 5, 6, 8, 9. Here your child will have to spot 7 as the missing number and if he/she doesn't, you start all over again. Another variation of this game involves both the parent and the child counting multiples of 2 (or 3, 4, etc.) alternately and whoever misses out a multiple, loses. This game allows the child to think, concentrate and focus to keep up with the game and also it is a good way to get the child to learn multiples faster.

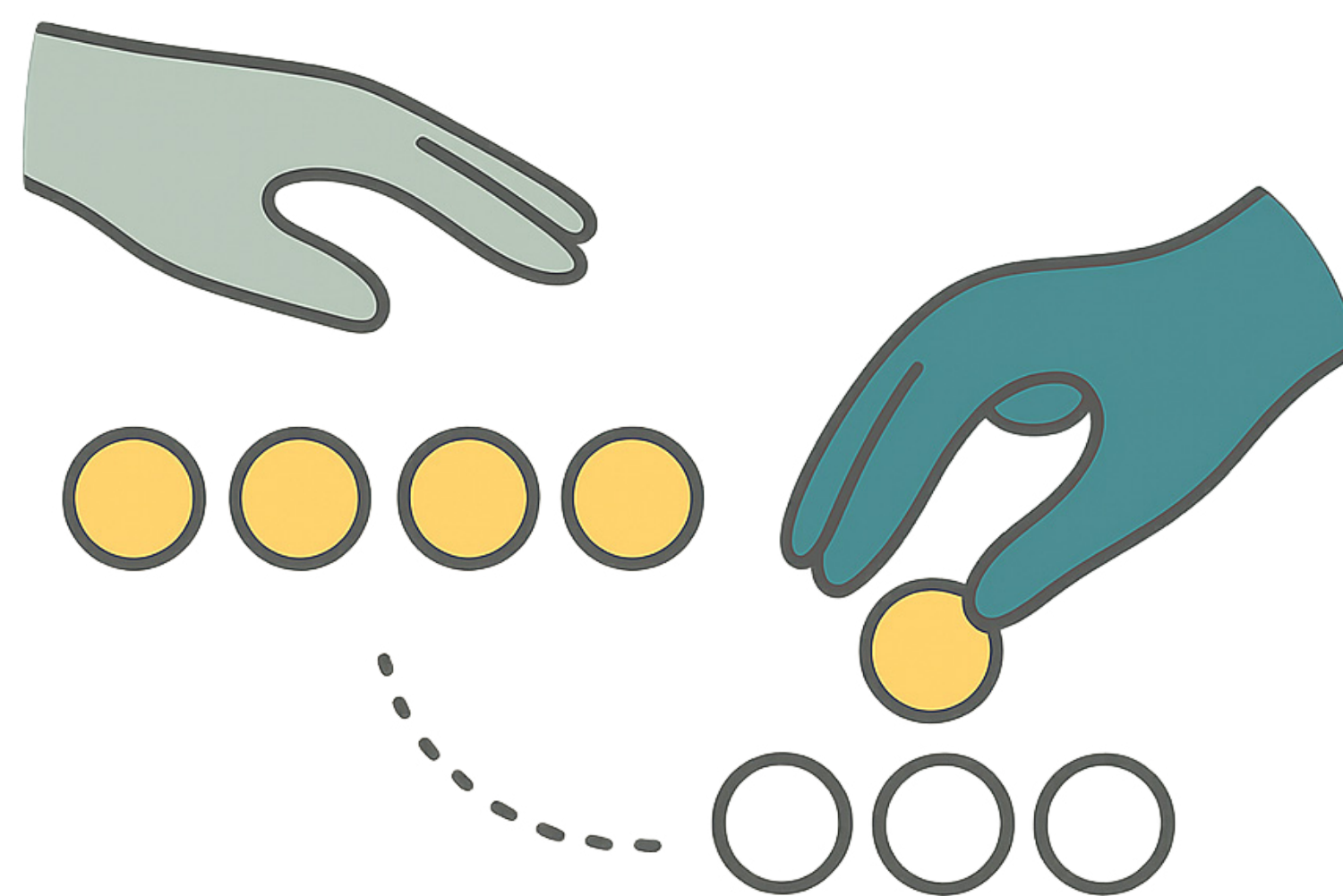
The Coin Game

This is one of the games that improves memory and sequencing as well as attention and concentration, and children enjoy it because it is fast-paced and fun. First, you will need a small pile of assorted coins, a cardboard sheet to cover them, and a stopwatch (or a regular watch with a second hand.)

Choose five of the coins from the pile (for this example, a 50 paisa, 1 rupee, 2 rupee, 5 rupee and 10 rupee coin) and put them into a sequence.

Now, tell your child to “[Look carefully at the coins arranged on the table.](#)”

Then, cover the coins with the cardboard. Start the stopwatch, and then ask them to make the same pattern using the coins from the pile.





Letter Cancellation

Provide the child with a newspaper column or page and ask him/her to cancel out with a pen, one or two specific alphabets at a time. This task makes the child focus attentively upon the newspaper words to find the specified letters to be cancelled.

Number Cancellation

Write down many random numbers on a page and present it to the child, instructing him/her to cancel out with a pen one or two specific numbers at a time. This task makes the child focus attentively upon the numbers to find the specified numbers to be cancelled.

Riddles

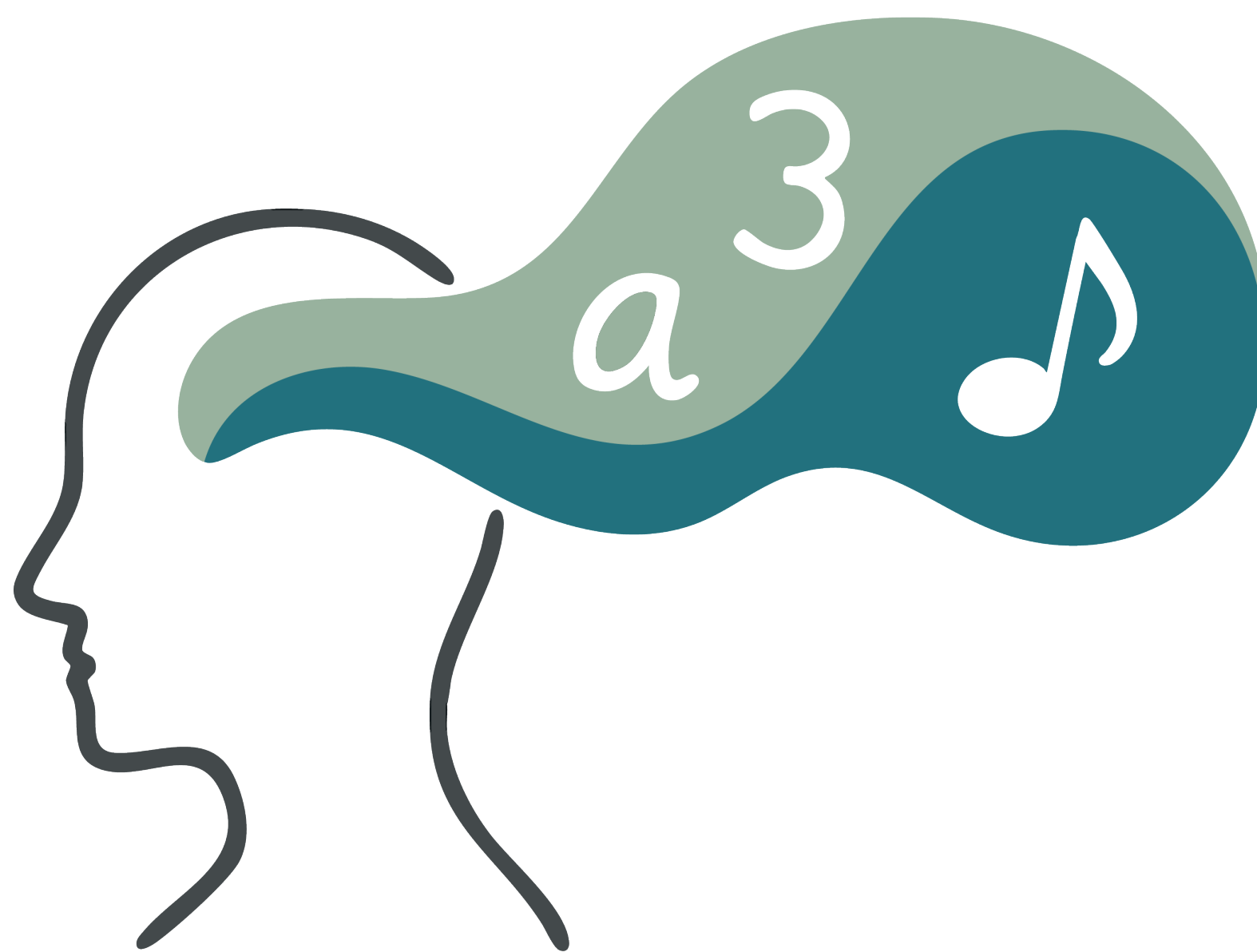
Ask your child interesting riddles that will urge them to think in order to get the right answer. Give them clues to maintain their enthusiasm.

For e.g. I am White. You can drink me. (*Answer - Milk*).

I am round and Red. My insides are also Red. (*Answer - Tomato*).

What do we use to see that is spelt the same from both ways? (*Answer - eye*).

Section 3: Creative Play & Word Games



Tongue Twisters

Trying to repeat tongue twisters properly is a good way to make a child focus and improve their vocabulary. Start with the most popular, *“She sells sea shells on the sea shore”*, and move on to more complicated ones which your child will be motivated to master, like *“Betty bought some butter batter but the batter was bitter so she went to buy some better butter to make the bitter batter better.”* Other examples include *“Red bulb, Blue bulb”*, and *“How much wood would a woodchuck chuck if a woodchuck could chuck wood?”*

Memory and Concentration Games

These games require the child to memorise names of places, movies, fruits, etc. in a sequence and repeat every time their turn comes. This will keep them motivated to work harder and stay focused so that they can remember every detail. For e.g. Start with the name of an animal. Make note of the last alphabet of this name. The next person is to say an animal’s name that starts with the last alphabet of the first animal name.

For e.g. Dog, next person says Dog, Gorilla, the third person says Dog, Gorilla,

Anaconda and so on. Also, there are some free computer games on the Internet that also improve concentration or memory such as Memory and Mosquito Killer. For older children and adolescents, one may check out the cognitive exercises provided by Lumosity.

Tabletop Games

Give your child one-on-one time with mom or dad while working together on a puzzle (Crossword puzzles improve attention for words and sequencing ability, while Picture puzzles in which the child has to look for things that are “wrong” in the picture or look for hard-to-find objects also improve attention and concentration) coloring a picture, finger painting, or engaging in water play (driving boats in the sink, pouring water into funnels or sieves).

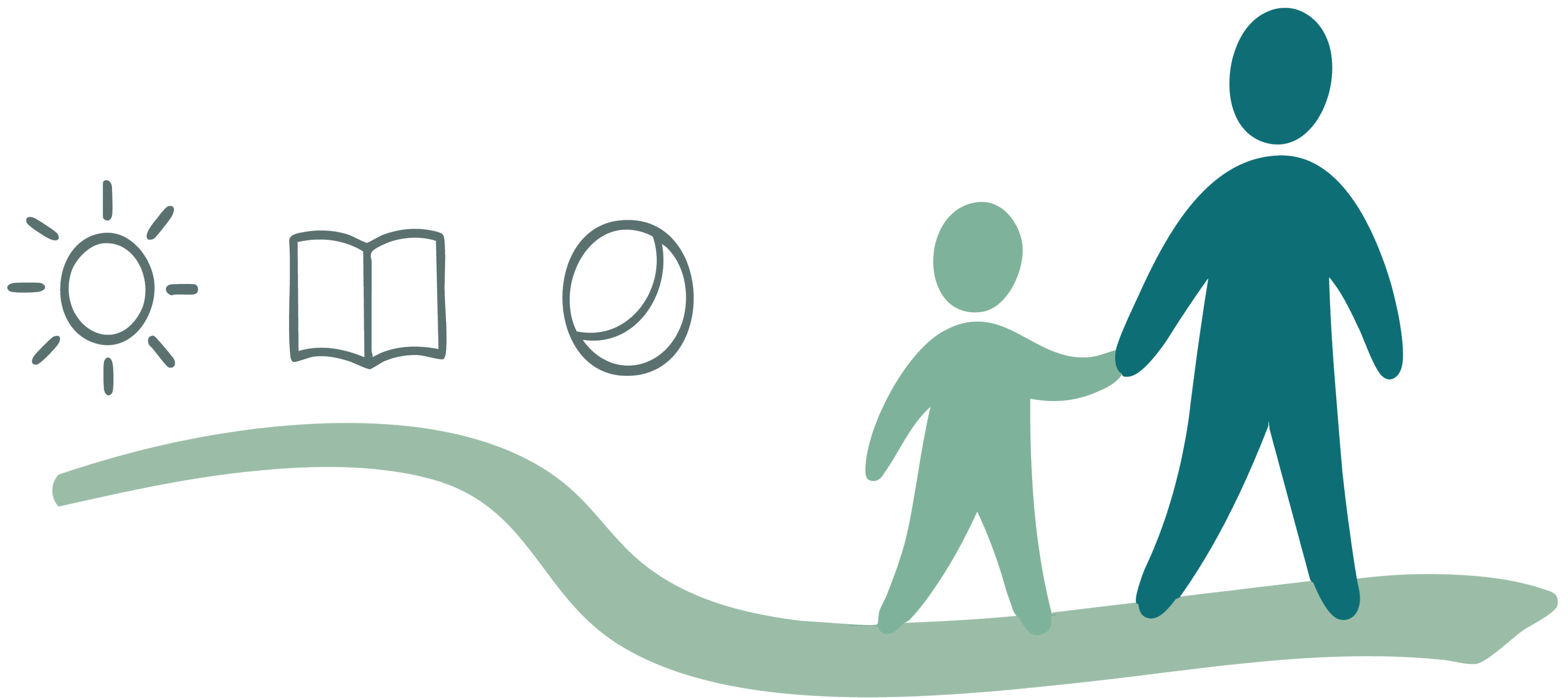
These activities engage a child as he/she learns to sit and focus. If he/she can’t get motivated for these games, make it a competition. Race to see who can put five puzzle pieces together first, or who can use the most colors in their picture.



As you do these “brain exercises,” work together with your child, serving as their “coach”. Gradually increase the time you spend on these activities. Praise their achievements, keep track of errors, provide encouragement, and track their progress as they improve.

This is a win-win solution that also strengthens your relationship with your child.

09 Parenting Tips

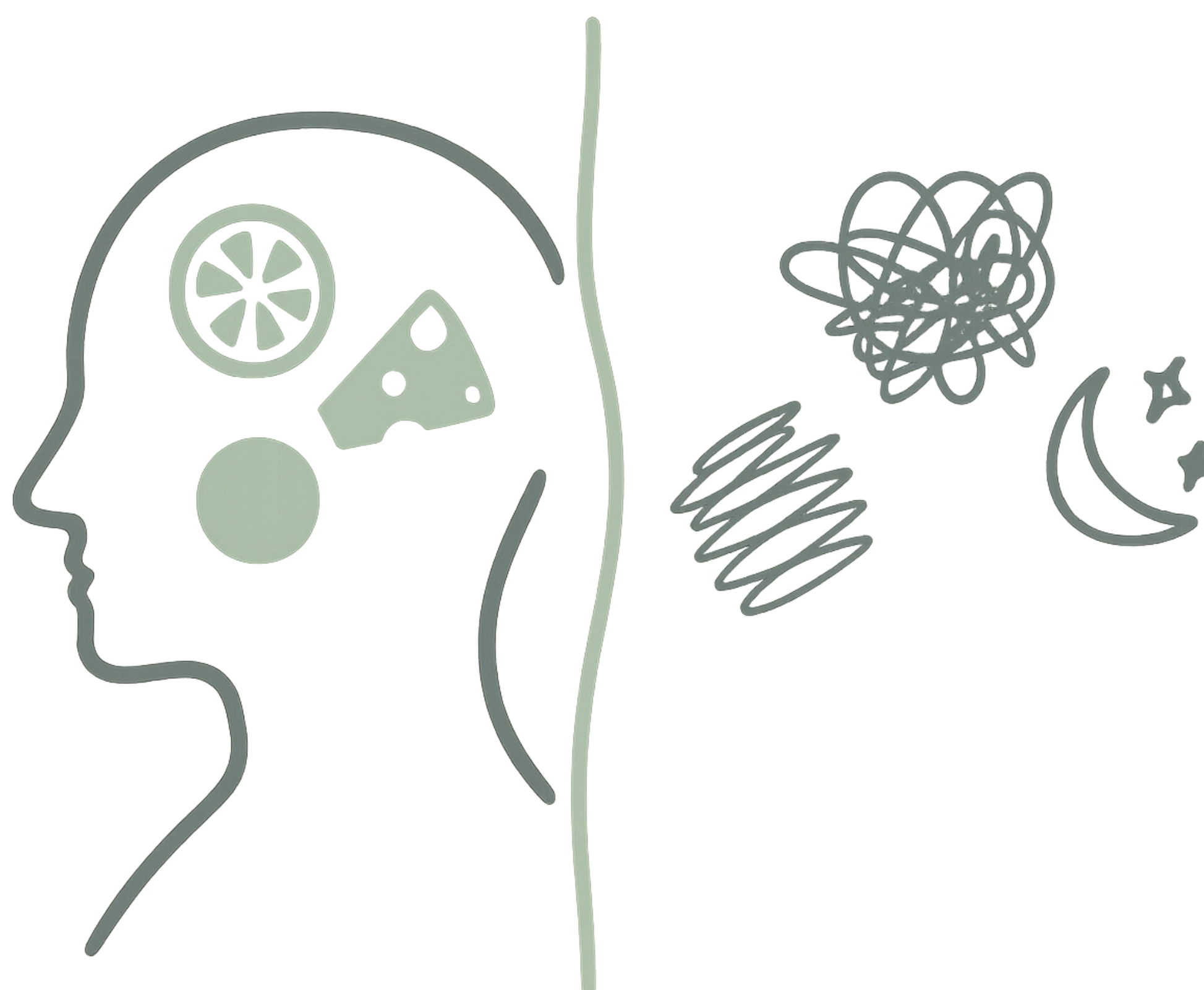


1. Establish a Routine and Follow It - A routine doesn't mean everything happens at the same time daily, but that tasks are done in the same order (e.g., brush teeth before breakfast). Use checklists to mark off completed steps for routines like getting ready for school, homework, and bedtime.

Encourage physical activity: Allow your child to have 1 to 2 hours of supervised playtime daily after school. Games like badminton, skating, or cricket can be played. After playtime, your child should do their homework and self-study.

2. Food (ADHD Diet) - Provide a diet with the right foods for good mental and physical health.

- **Protein:** Foods like poultry, eggs, fish, beans, nuts, and low-fat dairy can stabilize blood sugar and prevent hyperactivity. These items contain minerals like Zinc, Iron, and Magnesium, which help increase attention and have a calming effect.
- **High-Quality Calories:** Healthy calories are found in spinach, apples, walnuts, and red bell peppers.
- **Fish Oil:** Omega-3 fatty acids found in sardines, tuna, and salmon can reduce ADHD symptoms and increase mental focus.
- **Water:** Good water intake helps children improve concentration and maintain a healthy digestion and weight. Recommended daily amounts are: 5 glasses (1 litre) for 5-8 year olds; 7 glasses (1.5 litres) for 9-12 year olds; and 8-10 glasses (2 litres) for those 13 and older.



Foods to Avoid

- ♦**High sugar and processed snacks:** The more sugar from items like chocolates and sweets a child with ADHD consumes, the more restless and inattentive they become. Reduce ingredients on food labels that are code words for sugar, such as high-fructose corn sweetener, dehydrated cane sugar, dextrin, dextrose, sucrose, molasses, and malt syrup.
- ♦**Processed foods:** Items like breakfast cereal, cheese, tinned vegetables, bread, ready-to-eat meals, and soft drinks may contain large amounts of sodium, fats, and sugar which are harmful.
- ♦**Artificial Dyes and Preservatives:** Avoid artificially colored and flavored foods like colorful cereals and soft drinks.
- ♦**Foods that cause Allergies:** Talk to a doctor about testing for food allergies to avoid allergic reactions.

3. Sleep Encourage - 8 to 10 hours of sleep every night. A clear bedtime routine, with an early bedtime and at least an hour of screen-free time before bed, can help children sleep longer and better.

4. Study - Have your child do homework in small portions. Supervise their work at regular intervals but do not over-assist them. Do not allow them to study while watching television. For large amounts of homework or studying, allow for planned, regular breaks. Schedule tuitions at most thrice a week and only for subjects where help is required.

5. Set Clear Rules and Expectations - Children with ADHD need simple rules for behaviour. Write down house rules and hang them where your child can see them; use pictures for younger children. Clearly explain the consequences for obeying and disobeying the rules. Use “When/Then” statements to encourage good behaviour (e.g., “When you finish your homework, then you can take a break.”).

6. Rewards Rewards can be used to reduce misbehaviours and encourage positive ones, which also increases self-esteem. Rewards are most meaningful when given immediately after a desirable behavior is displayed, along with positive words and a smile.

♦**Types of Rewards:** Rewards can be material (toys, snacks) or non-material/ social (affection, praise, special activities). Non-material rewards can be given more often and can be more powerful. Praise should be specific, such as “Great job playing quietly while I was on the telephone”.

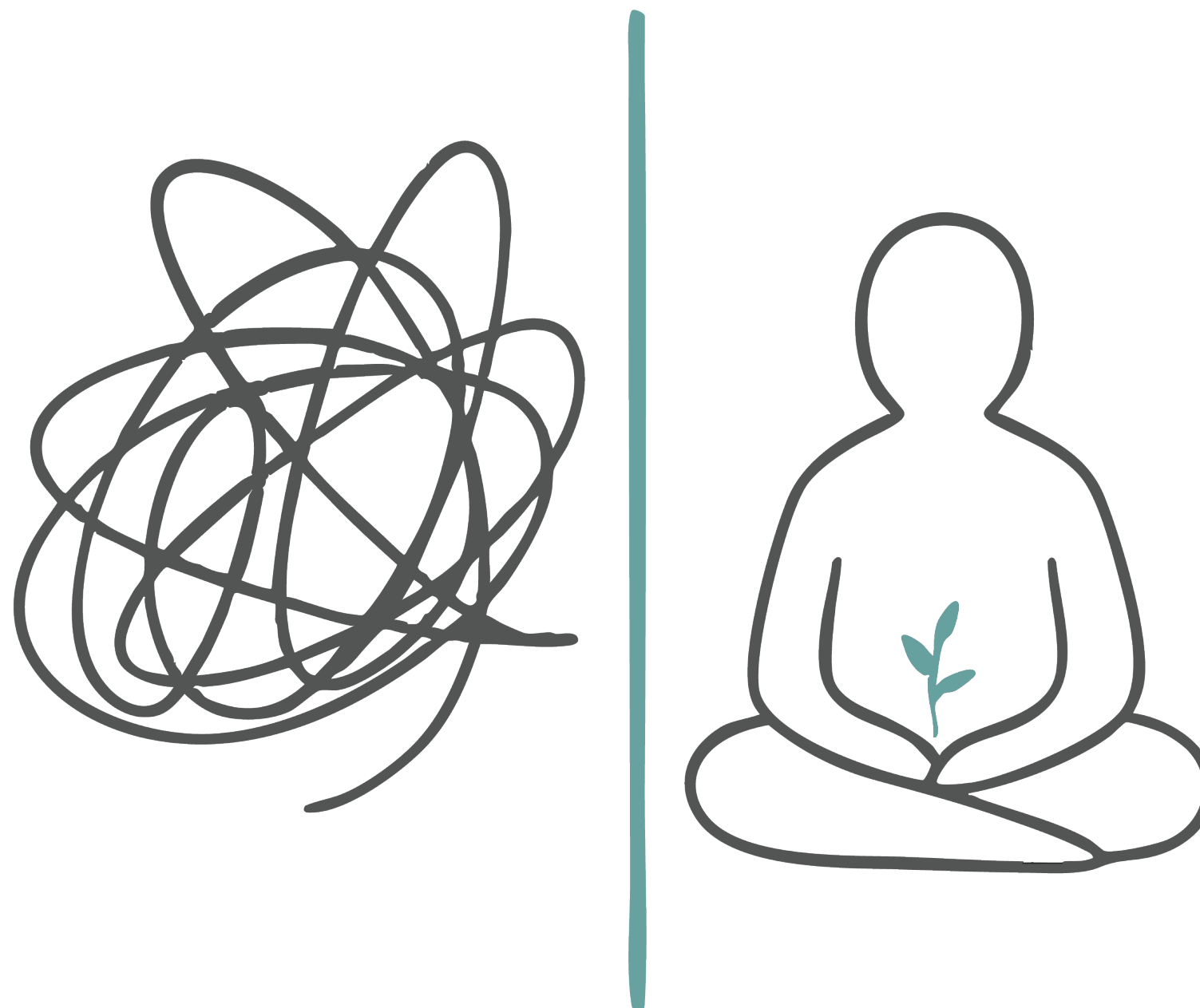
7. Minimise Screen Time (Television, Computer, Mobile Phones, etc.) - Research shows that children who watch more than two or three hours of television a day may show more symptoms of attention problems in adolescence. Excessive screen time also negatively affects academic performance and replaces important habits like reading. Try to eat meals without the TV on and engage in conversation with your family.

8. Set Clocks and Timers - Placing clocks with alarms set throughout the house can help establish times for key activities like waking up, homework, playtime, and bedtime, helping to maintain a consistent schedule.



9. Stay Positive and Healthy Yourself - To have the stamina to help your child, make sure you get regular exercise and good nutrition. Focus on the positive and praise your child for what they do right. When you maintain a positive attitude, it helps your child develop the same.

10 How to Handle Behavioral Issues



- 1. Time Out Technique** - This technique is used to decrease undesirable behaviours like disobedience, hitting, or yelling. The principle is to remove the child from any reinforcement for a short period, which they spend alone in a corner in silence. The time-out area should be accessible and easily monitored, like a corner of a room. Short periods of 5 to 10 minutes are effective. When sending a child to time out, say “Time Out for...” and state the misbehaviour, with no further discussion. During time out, the child should not be allowed to talk, play, or watch TV.
- 2. Silent Treatment** - Do not speak to your child for 5 to 10 minutes after they disobey or display undesirable behaviour. Continue to do things for them, like serving food, but refuse to speak to them. Reiterate that you love them but will not tolerate the behaviour and will speak again only after the time has passed.
- 3. Plan for Problems** Develop a plan for what you will do if your child misbehaves in public and share it with them beforehand. This may lessen the likelihood of the behaviour. If your child does misbehave, follow the plan. For example, if you plan to buy only one toy at the mall and your child demands more, do not pay attention to their requests or crying and walk on.

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B Notes

A clear and compassionate guide to helping your child thrive with ADHD.

From practicing child psychiatrist Dr. Ruchi Gupta, this book provides practical, real-world tools to turn challenges into strengths.

Learn how to:

- Understand the core symptoms and causes
- Explore all effective treatment options
- Improve focus with hands-on activities
- Master strategies for diet, routine, and discipline
- Manage difficult behaviors with calm techniques

About the Author

Dr. Ruchi Gupta is a child psychiatrist with over two decades of experience. She provides empathetic and practical solutions for families navigating neurodevelopmental disorders.