**ADHD: BEYOND THE BASICS**

**IS ADHD REAL? MISCONCEPTIONS RELATED TO ADHD**

Individuals diagnosed with ADHD exhibit a consistent pattern of reduced neurotransmission of dopamine and norepinephrine in the prefrontal cortex, the region responsible for regulating alertness, attention, and motivation. This dopamine deficiency, a key player in the brain's reward system, leads to decreased stimulation in the brain's motivation and reward centres for those with ADHD.

Although more boys than girls are still diagnosed with ADHD annually, the gender gap is narrowing. Girls with ADHD often exhibit symptoms of inattentiveness rather than hyperactivity and impulsivity, making their symptoms less noticeable in the classroom. Additionally, females are more inclined to mask or internalize their ADHD symptoms, potentially leading to anxiety and depression, and thus, missed or incorrect diagnoses.

Another misconception is viewing ADHD as a childhood disorder that individuals will naturally outgrow. Research indicates that a significant percentage of those diagnosed with ADHD in childhood will continue to experience symptoms into adulthood, affecting approximately 40% to 65% of cases.

Untreated ADHD can lead to difficulties in regulating mood, impulses, and actions, increasing the risk of various health issues such as weight management problems, substance abuse, anxiety, depression, and engaging in risky behaviours. Academic performance, occupational success, and financial stability may also be negatively impacted. Delayed diagnosis may result in missed opportunities for skill development and contribute to a negative self-image in affected individuals.

**ADHD AND ATTENTION DEFICITS OR ATTENTION REGULATION DEFICITS**

One of the prevalent misunderstandings surrounding ADHD is the belief that it renders individuals incapable of paying attention. Contrary to this notion, many individuals with ADHD can indeed focus for extended periods on activities they find engaging, such as building, reading, drawing, or playing video games. However, due to the disrupted neurotransmission of dopamine and norepinephrine, they may struggle to regulate their attention effectively.

While individuals with ADHD are capable of paying attention, they may encounter challenges in doing so when necessary, for the required duration, or on specific tasks—particularly if they lack interest or internal motivation. Some experts have even proposed relabelling ADHD as "Deficits in Attention Regulation Disorder" to better capture this aspect.

When confronted with boredom or disinterest, individuals with ADHD may find it difficult to maintain focus on the current task and may be easily distracted by more stimulating thoughts or activities. For instance, a child might gaze out the window at someone mowing the lawn or fidget with a textbook's loose seam instead of listening to the teacher. Additionally, many individuals with ADHD exhibit a tendency to be multi-focused, attending to numerous stimuli simultaneously at the expense of directed attention to a single task. They may experience a constant stream of thoughts, making it challenging to concentrate on any one activity.

Conversely, when a student with ADHD becomes deeply engrossed in an activity they find highly stimulating, such as playing a video game or building with blocks, they may enter a state of hyper-focus. During hyper-focus, individuals are so intensely focused that they block out other thoughts or stimuli. This level of concentration can be so profound that the individual loses track of time and may remain absorbed in the activity for hours or even days. Despite appearances, when students with ADHD are in a state of hyper-focus, their attention may be elsewhere, even though they may seem to be listening.

This highlights that ADHD does not solely involve deficits in attention; rather, it encompasses challenges in attention regulation. Difficulties in regulating attention contribute to the struggles many students with ADHD face when transitioning from one task to another.

**DEFINING ADHD**

ADHD is classified as a neurodevelopmental disorder affecting the brain's self-management system. As defined by the DSM-5, it involves persistent patterns of inattention and/or hyperactivity-impulsivity that disrupt functioning or development. Diagnosis typically requires the manifestation of several noticeable symptoms in two or more settings by age 12, persisting for at least six months.

These diagnostic criteria prompt important considerations. For instance, a parent might express frustration about a child's behaviour at home, while educators observe no apparent issues in the school environment. Conversely, a child may perform well at home but struggle in the classroom. These variations highlight the importance of understanding how ADHD can manifest differently in different settings, emphasizing the need to avoid judgment or assumptions and instead focus on adapting strategies for each environment.

Furthermore, the discrepancy in perceptions between teachers and parents underscores the role of perspective. ADHD has a strong hereditary component, meaning that a significant proportion of diagnosed children have at least one parent with ADHD. Therefore, when educators request parental assistance in addressing a child's organizational challenges, it's crucial to acknowledge that parents themselves may struggle with similar issues. Recognizing this dynamic is essential for effectively engaging parents in supporting their children's needs.

**HOW TO DEAL WITH FIDGETING**

When children with ADHD struggle to maintain focus, remaining seated can exacerbate their difficulties. Conversely, movement can stimulate brain regions responsible for attention by boosting dopamine and norepinephrine levels, akin to the effects of ADHD medications. However, excessive movement in the classroom can pose a distraction to both the student and their peers. To address this, incorporating fidgets can provide a solution. Fidgets provide a helpful tool for students who require movement to remain engaged.

Carly, for instance, keeps a variety of fidgets in her classroom, allowing students to use them as needed. We recommend that all classrooms and therapeutic spaces in schools have fidgets readily available for any student. These can be easily sourced from novelty or party stores, offering affordable options like squeeze balls, pencil toppers, felt, and putty. Some students may prefer wearable fidgets such as spinner rings or bracelets with movable beads, or even a small piece of cloth to hold in their pocket. Encouraging students to explore different fidgets helps them discover their preferred tools for managing their focus and energy levels.

Having a diverse selection of fidget options is advisable, as these tools may need to be rotated periodically to address the need for novelty often associated with ADHD. You may have previously experimented with allowing students to use a particular object, such as a stress ball, only to find that instead of aiding their focus, it created further distraction. Hence, it's crucial to offer a range of options.

Initially, upon introducing fidgets in the classroom, you may notice all students engaging with them. However, with proper instruction, only those who truly benefit from them will continue use over time. The following steps outline how to introduce fidgets to your students and impart principles regarding their effective use:

1. Discuss individual differences in attention: Begin with a full-class discussion about the differences that everyone has regarding the ways they are able to pay attention. What makes it easier for some students to pay attention? Harder? Teach students that science has shown that some people can pay attention more easily when they move around, whereas some find it easier to sit relatively still. There are two essential goals of this conversation. First, we want to help students be more accepting of themselves and others for their differences in terms of how they best focus and learn. There is enough spotlight on “those kids” already. Therefore, rather than only allowing students with IEPs or 504 plans to have fidgets, allow anyone who can use the fidget properly to benefit from having one. Second, we want to raise students’ awareness of their own best way of being.
2. Demonstrate the difference between “fidgeting” and “playing.”: To demonstrating what fidgeting involves, hold an object in your hand (we like to use long rubber sticks called Bendeez for this demonstration), and show students how you can move it quietly in your hands while talking and listening. The object is your secondary focus; it is in the background of your mind. It does not require your attention. You may discretely hold it in your lap under your desk. Next, contrast this with playing with the object. For example, show how you can make it become a pretzel. This action requires your attention, your focus, and your concentration. You are no longer fidgeting. The object is now your primary focus.
3. Demonstrate respect for others: Show the students what happens when you bang the object on the table or swing it around a bit. Even if you are not bothered by your fidgeting, it can become an annoyance to others. Reinforce the notion that fidgeting involves being respectful and not distracting others in the classroom.
4. Discuss the rules for fidgeting: These are best generated organically from the class discussion. For example:

* You may use any safe, small object as a fidget.
* You need to be quiet when using the fidget.
* You may not distract others.
* You may not be destructive when using the fidget.

**Is It a Fidget or a Toy?**

|  |  |
| --- | --- |
| **Fidget** | **Toy** |
| **Secondary Focus**: When a fidget is being used appropriately, it should remain a secondary focus. This means that it should stay in the background of your attention. | **Primary Focus**: A fidget becomes a toy when it is the primary focus of attention rather than what is being taught. |
| **Eyes on Learning**: Eyes should remain on the source of learning when fidgets are used correctly. Whether you are completing an independent task or paying attention to the teacher, your focus needs to be on learning. | **Eyes on Fidget**: When eyes are on the fidget instead of the source of learning, it is no longer being used as a fidget. The fidget has now become the primary focus, and attention to the task is lost. |
| **Mindlessly Used:** When used properly, a fidget is used mindlessly to the point where it becomes part of a system. | **Actively Used**: When the fidget is actively used, you are investigating how it works, trying to build with it, or trying to create something with it. If a fidget it being actively used, it has now become a toy. |

Don’t Let Your Fidget Become a Toy! Be Aware Not to Distract Others!

**TIME—IT’S NOW, OR IT’S NOT NOW**

Imagine that Jonny’s parents call up to him and say, “Hey Jonny, will you please come down for dinner in five minutes?” Five minutes pass by, and Jonny still doesn’t come down. What are the assumptions that many parents (and others) make about Jonny? They might say that he’s lazy, he doesn’t care, he’s so involved in what he is doing that he lost track of time, he’s defiant, or he’s disrespectful. We’ve heard it all.

Do you know anyone (perhaps a friend, a spouse, a family member, or—dare we say—even yourself) who is chronically late, and who is always surprised at this tardiness? Or maybe you know someone who is always rushing you. Someone who is constantly saying, “Come on, we are going to be late!”, while you’re thinking, “We have 10 more minutes. What is the rush?” What assumptions do you make in these situations?

While it’s natural and typical to make assumptions about people’s behaviour, when it comes to individuals with ADHD, there is often something else going on as well. This is not to say that some of these assumptions are not true at one time or another.

Research has shown that the ability to estimate the passage of time is weaker for people with ADHD and does not improve when they are on stimulant medication (Barkley, Koplowitz, Anderson, & McMurray, 1997). It turns out that some people’s internal clock is not as accurate as other people’s. They don’t feel the passage of time in the same way. Therefore, their whole sense of time is skewed. Importantly, this difficulty in estimating time doesn’t just result from their inattention to the present moment; it also results from their inattention to the future. As Dr. Edward Hallowell put it, “In the world of ADD, there are only two times: now and not now” (2011, p. 92).

Consider how this “now” or “not now” mentality can impact students in your classroom. Imagine that you tell the class on Monday, “Okay everyone, there will be a math test on Friday.” In turn, Jonny thinks, “Why are we talking about that now? The fire’s not at the door yet.” After all, “If tomorrow is not the DUE date, then today is not the DO date.”

***This brings us to a vital message: Whenever you are giving students a task that must be completed within a certain timeframe, you must provide them with something to measure time with***. Often, teachers assume that having a clock present in the classroom is sufficient. However, this is not the case! If you tell your students, “Okay, you have 10 minutes to complete this assignment,” don’t assume that they are looking at the clock and saying to themselves, “Hmm, it’s 10:05, so I have to be done by 10:15.” On the contrary, many students need more direct support to measure the passage of time.

One way to more concretely help support students estimate the passage of time is through the use of visual timers. We have had tremendous success using these devices. Visual timers do not necessarily focus on the overall or absolute time but, instead, help visually display the amount of time remaining for a given task. When you tell your students that they have 10 minutes for a given assignment, you can set the timer for 10 minutes, and they will see time disappearing. The following is some suggestions for making the best use of visual timers:

**Visual...Timers**

1. Regardless of grade level, we suggest that each classroom and therapeutic setting has several visual timers available so that students can have them near their work area. That way it is not just a device for “those” kids with special needs; rather, it is a tool that anyone can benefit from. In fact, students whom you least suspect might be the ones who utilize this tool most often.
2. Discuss with the class that not everyone has the same awareness of the passage of time. We are each responsible for knowing how much time we have to complete tasks, arrive somewhere, or stop an activity in order to go on to another activity. You may want to tie in a discussion about transitioning between activities, as discussed in Chapter 2.
3. Each time you assign a task that has a time limit, make sure that you either set one timer that the whole class can see, or strategically place a few around the room to ensure that students who you know will benefit the most have the tool in sight.
4. If you have a student who seems to become agitated by the visual timer or seems to obsess over watching the time, use this as an opportunity for a private discussion. You might want to explore what the student’s concern is so that you can best support them. For instance, you may explore:

* Is the student concerned about running out of time?
* Is the student focusing on others’ progress rather than his or her own?
* Would the student prefer another type of device to serve as a reminder?

**The Premack Principle**

The Premack Principle (also known as Grandma’s Rule) is a psychological theory that proposes the following: A person is more willing to do a less desirable activity first in order to get to do a more desirable activity later. The Premack Principle is evident in the commonly used adage, “First eat your dinner, and then you can have dessert.” While this theory has been demonstrated in practice, have you noticed that it does not seem to always apply to some students? Why? Because kids with ADHD often have difficulty delaying gratification. It’s hard to imagine the future becoming the present when their sense of time is “now” and “not now.” Children with ADHD are focused on the negative feelings of what they must do in the present moment—as opposed to the feelings they will have in future once that task is complete.

Asking students the following questions can help them create an image in their mind of what it will feel like to be done with a difficult or challenging assignment, and what they can look forward to as a result of having finished.

* How do you think you will feel once you are done? Relieved? Proud? Relaxed?
* What will you be able to do as a result of finishing? Move on to a more interesting activity? Get a “completion” on the assignment? Acquire knowledge that will be helpful?

Even with the best of intentions, it is still sometimes challenging to help students face the work that they need to do, especially if an assignment is challenging in such a way that it makes them feel badly about themselves. Sometimes, people try to brush over the difficulty that a student might be having by encouraging him or her to “go on.” They might try providing words of encouragement by stating, “Come on, you got this. Piece of cake.” However, this approach may feel invalidating to some, and they may even feel that the person making these statements really doesn’t understand them. Sometimes, the greatest support that you can provide a child who is struggling is honest empathy and compassion: “I know that doing this work is really hard and frustrating. I am here if you need my support or help.”

**WHAT ELSE CAN BE A PART OF ADHD**

for those of you who specifically work with students with ADHD, a crucial fact cannot be overlooked: ADHD is an executive function challenge. A person cannot have ADHD without having at least some challenges in executive functioning. There is tremendous overlap between the two constructs, both in terms of symptoms and their real-life impact.

On the other hand, it is also important to keep in mind that someone can have executive functioning deficits without having ADHD. However, unlike ADHD—which is a formal diagnosis in the DSM—a person cannot be diagnosed with executive function deficits; rather, it is more of a description at this time.  
  
The executive functions encompass a range of metacognitive processes that oversee our capacity to plan, problem-solve, maintain attention, regulate impulses, manage time, and pursue goal-directed activities. Essentially, they dictate how effectively we carry out our chosen tasks, earning them the collective moniker of the brain's CEO (Chief Executive Officer) due to their role as its mental control centre.

Primarily housed in the prefrontal cortex, located behind the forehead, these executive functions undergo significant development. As the last region of the brain to mature, our ability to plan, make decisions, and regulate behaviour is influenced until the brain reaches full development—a process that typically extends until around 25 years of age. This revelation is striking, particularly considering the weighty life decisions often expected of individuals in their 20s. Below are some of the executive functions:

* Initiation and Activation
* Sustaining and shifting focus
* Planning and organizing
* Regulating alertness, sustaining effort, and processing speed
* Working memory
* Self-monitoring
* Emotion regulation

A few other issues are important to mention that can be part of having ADHD or may be highly correlated.

* ***Learning disabilities*** – 31% to 45% of children with ADHD have a learning disability, and a significant number of those with learning challenges have dyslexia (DuPaul, et al, 2012). We find this is a very important statistic to take note of. Very often, especially while they are young, students may be red-flagged because of their lack of focus and behaviour. However, there are times when the lack of focus and challenging behaviour is caused by the child’s reaction to the difficulty he or she is experiencing in learning the expected material. In addition, many students who have ADHD are highly intelligent and can compensate for learning challenges early on until the expectations exceed their ability to mask their difficulties. We encourage educators and parents to make sure that students who are suspected of having ADHD are also assessed for their learning profile as well.
* ***Sleep disruption*** – Most studies find that between 33% to 50% of people with ADHD experience difficulty falling asleep and/or staying asleep in an appropriate amount of time. This situation can create tremendous challenges for both parents and students, and can have a significant impact on learning and behaviour. In recognizing that sleep issues are a by-product of ADHD and not necessarily due to lack of effort by a parent or student, it may be reasonable in some cases to accommodate scheduling concerns on IEP or 504 Plans.
* ***Depression*** – 17% of children with ADHD experience depression (National Survey of Children’s Health, 2016). It is not always clear whether the depression has a clinical basis or whether it arises because students sometimes unintentionally experience such a mismatch between their environments and expectations.
* ***Behaviour or conduct problem*** – 52% of children with ADHD exhibit behavioural challenges (National Survey of Children’s Health, 2016). It’s important to keep in mind that just as with depression, the challenging behaviour may develop as a result of students feeling misunderstood or that expectations are unreasonable even when they see others around them managing fine. We firmly believe that every parent who has a child diagnosed with ADHD must receive parent coaching, just as educators must receive proper training to work with them in the classroom.
* ***Anxiety*** – 33% of children with ADHD struggle with anxiety (National Survey of Children’s Health, 2016). We call this the “hidden disability” because we think that anxiety is almost always in the room with these students. Often what we witness as poor behaviour is driven by their anxiety.
* ***Cognitive hyperactivity*** – While your student may be looking directly at you, he or she may be having a bombardment of thoughts, or may be hyper-focused on some internal activity.
* ***Difficulty learning from past experiences*** – Time is “now” and “not now.” That was “then.” Difficulty transitioning from one thought or activity to another – Remember, ADHD is a challenge
* of attention regulation, not just focus.
* ***Difficulty taking another person’s perspective*** – It’s not that they don’t care about those around them, it’s often just that there is so much internal chaos to sort out that they haven’t gotten to thinking about the other person yet.
* ***Sloppy handwriting*** – Have you ever noticed the difference in a student’s handwriting when he or she is on stimulant medication vs. when he or she is not—it may seem completely different. So, it is not always learning how to print. Instead, it may be about doing it correctly with everything else going on, both internally and externally.
* ***Difficulty with written expression*** – Between the bombardment of thoughts that may occur, and the challenges in regulating their focus and getting organised, plus the challenges in executive function skills, writing an essay from start to finish may be especially challenging for those with ADHD. We will provide support for written expression in the next chapter.
* ***Difficulty delaying gratification*** – It’s hard to imagine the future becoming the present when time is “now” and “not now.”
* ***Difficulty tolerating boredom*** – After even the most exciting events, once it’s over, it’s over—now what are we doing? Remember, they have below-normal levels of neurotransmitters when they are not stimulated.

***Beware of the*** ***quiet child***... you don’t have to be hyperactive to have ADHD and its related impairments. Even if children are compliant, it does not mean that their neurobiology is not impacting them.

**EDUCATING PARENTS**

Involving parents who are well-informed about the factors influencing learning, motivation, and behaviour is crucial for effectively supporting students' education. They serve as invaluable partners in facilitating students' learning, management, and performance in school. Educating both students and parents about executive functioning proves to be advantageous.

As previously mentioned, executive functions are often likened to the CEO of the brain. Therefore, an essential aspect of teaching students about executive functioning entails helping them identify instances when their "managers" may require additional training or support. This approach aims to alleviate feelings of shame or deficit and instead emphasizes skill development. By fostering this understanding, students and parents can collaborate more effectively in addressing challenges and promoting academic success.

It's crucial to recognize who holds the role of the CEO of the brain at different developmental stages. In elementary school, parents and educators often fulfil this role, guiding students through various transitions, materials, and expectations. As students progress to middle school, they gain more independence and tend to align with the norms set by their peer group. During this phase, it's as if students' peers become the de facto CEOs of their brains.

Upon entering high school, many students appear prepared to assume the role of CEO themselves. However, despite feeling ready, they may not be fully equipped to handle the multitude of expectations and responsibilities they encounter. This discrepancy often creates tension for parents of students facing challenges with executive functioning. Their children may assert that they are capable of managing everything independently, despite evidence suggesting otherwise. This dynamic results in a push-pull dynamic as parents strive to support their children while fostering their independence and self-efficacy.

**WORKING WITH PARENTS**

Working with parents is often more complex than it may initially seem. After all, is it their first child? Only child? Are the parents comparing this child to their other child, who may be unusually easy or unusually challenging? There may also be significant stressors at home, such as financial struggles, health concerns, and marital strife. Parents may disagree on how best to approach their child’s struggles—one wants to be stricter, and one wants to be more lenient. There may also be cultural differences that make it taboo to seek out services and receive support. And don’t forget: ADHD is highly heritable, so the child’s parent(s) may be undiagnosed with the condition or lack the skills needed themselves.

It’s also not just about the parent—imagine the student’s day! Most students with ADHD are more sensitive to their environment, expectations, and experiences. It often takes students with ADHD much more effort to achieve the same amount of work than it does their peers. They must constantly put forth effort to regulate their emotions, motivation, and attention—which can really drain their ability to handle frustration, expectations, and experiences. By the time they get home from school, they are out of emotional fuel, and they (and their parents) may be unequipped to manage what comes next—homework!

**ENABLING VS. SUPPORTING**

Parents and educators often struggle when it comes to deciding whether or not to provide a student with an accommodation or modification. In giving a student a “leg up” or a “crutch” are we making them more dependent? Are we preventing them from trying their best? Are we giving them a message that they aren’t capable of reaching their peer’s standards? These are important distinctions and not always easy to determine.

One way to address this issue is to look at how we define enabling versus supporting. When we ask parents and educators to define enabling I get answers such as these:

* When we don’t expect the child to do what they could do, or should do, on their own.
* When we make excuses for a child, who has acted poorly, or not done as they are expected to do.
* When we “over help” or “fix” the work the child has done.
* When we don’t allow the natural consequences of their behaviour to occur.

If a child forgets to bring in their violin for the 3rd time this month and the parent brings it to school in time for orchestra, is this parent enabling the child? It may appear that way at first, but let’s consider another possibility.

Perhaps, the student knows that she must finish her homework before practicing the violin. And, of course, it takes a long time to complete homework (or anything) for this child. So, trying to be good, she goes downstairs and practices until her dad says “Come up, Mary, it’s time to shower and get ready for bed.” So, Mary leaves her violin, planning to pack up after the shower. And... next morning Dad goes downstairs after Mary leaves for school and there is the violin. “What should I do?” he thinks. “I don’t want her to get in trouble. And I know she isn’t great about being organized—in fact, it’s not my strong suit either sometimes. And gee, she made the bus today! And her shoes matched! Ok, her room is a mess, and she did fight with her sister. But we are working on those things. I guess I have to add getting organized for school to the list. Oh, that list is long—but the other things on there are more important right now. I think I’ll just bring in the violin again and make a plan to help her—when we have time to focus on that issue.

Our definition of enabling: ***Enabling is doing something for someone else without a PLAN to help them do it for themselves***.

Given that, perhaps before we judge from the outside that someone is “enabling,” we may need to step back and recognize that we don’t know what we don’t know.

What do we suggest teachers do if they notice a pattern of behaviour where the parents are being more involved than might seem expected or helpful? Say to the parent, “I see you are bringing in the violin again today. Is there anything I can do to help?” Sometimes, ***collaborating with the parent, and perhaps the student, can help the student develop a new, helpful structure or routine***.

It is imperative for everyone working with children to understand what the executive functioning skills are and how the development of these skills impacts all aspects of a student’s life. It is valuable to share information about executive function with parents and the concept that we are each the “CEO” of our brain’s executive function system. Providing parents with a basic understanding of this will help them become familiar with the concepts you are teaching their children.

**Communication: Helping Students Connect Through Words**

Many students, including adults, particularly those facing ADHD and executive functioning hurdles, encounter difficulties in articulating themselves, actively listening, empathizing with others' perspectives, and regulating conversational flow. Some contend with impulsiveness, finding it arduous to await their turn to speak. Others exhibit low frustration thresholds, seeking immediate gratification for their needs. Furthermore, individuals grappling with heightened anxiety or rigidity may significantly alter their communication style and content. Some may seem disinterested in others' viewpoints, engrossed in their own narratives. Finally, those processing information slowly or with limited working memory may find it challenging to keep up with the pace and substance of discussions.

To address these obstacles, we've discovered that actively instructing students in the art of effective conversation yields remarkable benefits. By explicitly teaching these skills, students cultivate confidence in expressing themselves and demonstrate their comprehension of others' messages.

Three pivotal elements essential for fostering productive conversations are active listening, perspective taking, and employing appropriate methods of interruption. Introducing these skills through formal instruction can empower students to engage more effectively in various settings, whether it be during small group projects, on the playground, or in any scenario requiring unstructured discussion.

**MODELING AND TEACHING COMMUNICATION**

**THE ROLE OF THE LISTENER**

In most productive conversations, there's a natural ebb and flow, with one person typically listening while the other speaks. The listener may interject, convey agreement or disagreement, or communicate nonverbally, but their primary focus remains on comprehending the speaker's narrative until it's their turn to speak. When teaching students effective listening skills, it's beneficial to break down the various components involved: mirroring, validating, and empathizing.

***Mirroring*** involves reflecting what you hear. While listening to the speaker, aim to grasp their message and attempt to articulate it back in your own words. You don't have to use the exact same phrases; in fact, paraphrasing with your own language can be even more effective. By summarizing what you've heard, you demonstrate to the speaker that you've understood their perspective and are willing to set aside your own thoughts to fully engage with theirs. For instance:

* If I understand correctly, you're telling me that you threw the ball when Susan accused you of cheating."
* "So, are you suggesting that you think it would be beneficial for us to select a leader for the project?"

***Validate the speaker’s statement*** by acknowledging their perspective without necessarily expressing agreement:

* "It sounds like you're feeling quite upset about Susan's accusation of cheating. Am I understanding you correctly?"
* "It seems like you believe that appointing a leader for the project would be the most effective approach. Is that accurate?"

***Empathize with the speaker*** by acknowledging their emotions and demonstrating understanding:

* "I can imagine that being accused of cheating would be really distressing. That must be frustrating."
* "I understand that you're feeling strongly about your viewpoint. Is that accurate?"

**TAKING PERSPECTIVE**

The capacity to understand another person's perspective is closely linked to social intelligence and situational awareness. For students with ADHD, this skill can be particularly challenging, as they may inadvertently come across as self-centered or insensitive due to deficits in cognitive abilities necessary for perspective-taking. This difficulty in "putting oneself in another's shoes" might manifest during conflicts on the playground or in recognizing the impact of their actions on others' learning in the classroom.

Developing a strong ability to consider another person's viewpoint fosters empathy, which is crucial for students with ADHD and executive function challenges. These students benefit greatly from explicit instruction and practice in perspective-taking.

The following activities aim to facilitate this skill development by prompting students to consider how individuals outside their immediate circumstances might think and feel. Through these exercises, students learn to transcend their own opinions and perspectives, actively working to understand the emotions and viewpoints of others in diverse situations.

**THE ART OF INTERRUPTING**

There are circumstances in which interrupting someone while they are speaking is not only appropriate but necessary. However, knowing when and how to interrupt in a respectful manner can be challenging for some students, particularly those grappling with executive functioning difficulties. Self-advocacy, the ability to speak up for oneself, is a skill that requires development. Some individuals, both students and adults, struggle with discerning when and how to assert themselves effectively in various social settings. Teaching students the following guidelines and techniques can empower them to address their own needs while still respectfully acknowledging others involved in the conversation.

**When is it okay to interrupt?**

* ***Emergencies or time constraints***: In situations where there is an urgent need to address a time-sensitive issue or a potential danger, it is crucial to pause the current conversation and attend to the immediate situation.
* ***Feeling overwhelmed***: If a student, as the listener, finds themselves struggling to keep up with multiple topics of discussion or if they are preoccupied with other thoughts, it becomes counterproductive to continue the conversation without addressing their concerns. In such cases, it is appropriate to slow down or halt the conversation to regroup.
* ***Feeling confused***: When a student is genuinely trying to understand the speaker's message but finds themselves unable to follow along, it indicates a breakdown in communication. It is essential to pause and request clarification to ensure that both parties are on the same page.

**How can you appropriately interrupt?**

Interrupting someone in a conversation can be done verbally or nonverbally. Here's how:

**Verbally:**

* Wait for a natural pause in the conversation or when the speaker has completed a thought.
* Politely signal your intention to speak by saying phrases like "Excuse me," "May I ask," or "I'm confused."
* If the speaker continues, gently interject a few words, but allow them a moment to acknowledge your attempt to speak.

**Nonverbally:**

* Use body language to convey your message. Just as you can show agreement or understanding through nods or gestures, you can also express confusion or disagreement.
* When you want to interrupt, raise your hand slightly to indicate your desire to speak.
* If verbal and nonverbal cues are not noticed, gently tap the speaker on the shoulder or arm to get their attention.

**TATTLING VS. REPORTING**

Students with ADHD and executive functioning issues frequently struggle to differentiate between tattling and reporting, presenting a significant challenge, especially for those still honing their communication abilities. Discerning when a student is engaging in tattling versus genuine reporting demands robust emotion regulation skills, which are often difficult for individuals facing these challenges. Certain students may exhibit heightened reactions to what others perceive as minor issues, complicating their ability to determine when to escalate a concern and when to dismiss it.

However, grasping the distinction between tattling and reporting is a crucial lesson for children, enabling them to discern when to seek adult assistance and when to address issues independently. From a young age, students are taught the importance of not indiscriminately reporting on their peers. However, some may misinterpret this lesson and refrain from reporting genuine concerns to teachers. For instance, incidents involving physical harm or persistent bullying demand adult intervention. If students feel reluctant to disclose such incidents, they may either attempt to handle the situation inappropriately on their own or remain silent when their input is essential for addressing the issue effectively. Teaching students to differentiate between tattling and appropriate reporting equips them with the necessary skills to navigate such situations responsibly. Additionally, they learn the importance of discerning when to address a problem and when to let it go, fostering effective problem-solving skills.

To assist students in understanding the disparity between tattling and reporting, initiating an educational dialogue is crucial. Here are some talking points to guide your discussion:

Tattling entails informing on another student for behaviour perceived as bothersome or morally incorrect, even if it doesn't cause physical or emotional harm to anyone. Tattling often aims to incriminate someone else.

You are tattling if:

* The behaviour in question isn't harming anyone.
* The action was unintentional.
* The issue can be resolved independently.
* The motive is to get someone else into trouble.

In contrast, reporting entails providing an adult with information about a situation to ensure the safety of oneself or others. It is undertaken with the intention of assisting someone in distress or preventing harm. You are reporting if:

* The behaviour poses a danger.
* The action was deliberate and harmful.
* Adult intervention is necessary to address the issue.
* The motive is to safeguard someone's well-being.

After facilitating a discussion on the distinctions between tattling and reporting, the following worksheet can be utilized to reinforce students' comprehension of these concepts. The worksheet prompts students to cut, sort, and paste various statements into the appropriate "tattling" or "reporting" category.

**WITHOUT CALM, THERE IS NO LEARNING**

When instructing and modelling communication skills for students, it's crucial to remember this: Learning cannot effectively take place without a sense of calm. Therefore, whether you're guiding an individual student or conducting a group session, make a proactive effort to select a suitable time or plan to revisit challenging situations once emotions have settled. The most opportune teaching moments often arise after the initial event. Moreover, if a student continues to struggle despite your guidance and examples, it might be wise to enlist the assistance of the school's speech-language pathologist. They can offer targeted support and further remediation tailored to the student's needs.

**THE VALUE OF CONNECTION**

Even though we've provided numerous activities and exercises to aid in enhancing students' communication abilities, it can still be tough to instruct those lacking confidence, interest, or intrinsic motivation. Establishing a genuine, personal, and nurturing connection with such students can be pivotal in helping them overcome obstacles and persist. We're all familiar with tales of the student who reminisces about that "one special teacher" who played a transformative role in their success. Here are some suggestions to assist you in forging a strong bond with the students who may seem the most resistant to connection.

**Increasing Connection:**

* Welcome each student by their name as they enter your space, speaking in a positive tone to associate their name with affirmation rather than correction.
* Maintain eye contact, possibly lowering yourself to their eye level, to ensure they feel acknowledged.
* Exercise discretion! When offering support and guidance, some students may feel uncomfortable with extra attention. Establishing private signals, passing notes, or requesting assistance from the student as a pretext for one-on-one time can afford them the discretion they desire.
* Enhance proximity: When providing instructions or corrections, try to be physically close to the student, allowing them to better focus on your guidance.
* When addressing challenging behaviours, use "I" statements to communicate how the student's actions impact you. For instance, "When you \_\_\_\_\_\_, I feel \_\_\_\_\_. Please \_\_\_\_\_\_\_\_\_\_\_." This approach reduces blame and lowers the likelihood of the student becoming defensive.
* Do not overlook the quiet students. As mentioned earlier, students with ADHD who lean towards the "inattentive" type may appear to manage well or compensate for their deficiencies. However, they could be internalizing significant struggles, striving to mask or avoid specific challenges, which may exacerbate feelings of anxiety or depression.
* Seek opportunities to praise whenever possible. Children with ADHD and executive function challenges often face constant redirection, correction, and occasional reprimands throughout the day, which can lead to negative self-talk. To counterbalance these negative messages, actively provide positive feedback not only for their achievements but also for displaying positive behaviour, maintaining a positive attitude, or putting in effort. However, some students may interpret praise as an indication of their inadequacies, believing that their teacher feels they require extra encouragement. Conversely, they may view criticism, not praise, as a sign of their teacher's confidence in their abilities. Therefore, when offering positive feedback, it's crucial that your encouragement is specific, genuine, and credible. Here's a three-word alliteration to guide you:
  + **Notice**: Observe when your student demonstrates or expresses something positive.
  + **Name**: Acknowledge what you've noticed and highlight the value in their actions or feelings.
  + **Nurture**: Offer warmth and appreciation to your student in that moment.

Attention-deficit/hyperactivity disorder (ADHD) is a prevalent neurocognitive disorder characterized by overactivity/impulsiveness and inattention, affecting social and educational functioning. It affects 5% of children worldwide, with varying rates across regions and age groups. Boys are more commonly affected than girls, and ADHD often persists into adulthood. ADHD is characterized by age-inappropriate levels of overactivity/impulsiveness (HI) and inattention, which impact social and educational functioning. There are three subtypes of ADHD:

* **Hyperactivity-Impulsiveness (HI**): This subtype is characterised by impulsive behaviour, acting without considering consequences, and difficulty waiting for one's turn.
* **Inattention**: Individuals with this subtype have difficulty sustaining attention on tasks, often becoming easily distracted or forgetful.
* **Combined Type**: This subtype involves a combination of hyperactivity-impulsiveness and inattention symptoms.

While the exact cause of ADHD remains unclear, research suggests a complex interplay of biological, psychological, and social factors. Brain regions and neural pathways are implicated, particularly the corticostriatal-mesolimbic dopamine system, the prefrontal cortex, and the parietal cortex. Genetic factors interact with environmental influences, such as postnatal smoke exposure and childhood maltreatment, to exacerbate symptoms.

ADHD frequently coexists with other disorders like oppositional defiant disorder (ODD), conduct disorder (CD), and anger issues. This underscores the multifaceted nature of ADHD and highlights the need for comprehensive assessment and treatment approaches.

Children with ADHD often struggle with self-regulation and may act impulsively without considering the consequences of their actions. This behaviour can manifest as arguing with adults, defying authority, losing their temper, and engaging in intentionally annoying behaviour. Research indicates that children with ADHD, especially when comorbid with oppositional defiant disorder (ODD), may experience difficulties in social interactions and strained relationships with parents.

These social impairments can stem from impulsive defiance and impaired self-regulation, making it challenging for children with ADHD and ODD to meet expectations and demands at school and home. They may struggle to cope with social norms and may have a low tolerance for frustration, leading to disruptive behaviour.

Children with ADHD may also demonstrate differences in motivation, often preferring immediate rewards over delayed ones. They may experience increased frustration during long and tedious tasks, particularly when reinforcement is delayed. Additionally, children with ADHD, regardless of gender, are more prone to conduct disorder (CD) problems compared to their peers without ADHD. Those with ADHD and co-occurring CD may exhibit deficient decision-making abilities, which are regulated by brain regions like the amygdala and right striatum, potentially predisposing them to risky behaviours.

Children with ADHD often have a lower threshold for frustration tolerance, making them more prone to disruptive behaviour. This difficulty in controlling their impulses can lead to socially unacceptable actions. Compared to their peers without ADHD, children with ADHD may exhibit more frequent outbursts of rage and impulsive reactions to undesirable situations.

Additionally, children with comorbid conduct disorder (CD) often face difficulties in social relationships, as well as academic and occupational functioning. These challenges may further exacerbate their behavioural issues and impact their overall well-being.

Winstok (2009) characterizes anger as a defensive or retaliatory reaction to perceived provocation or threat, which can disrupt or impair normal functioning or one's sense of self. Individuals with anger issues often experience more frequent, intense, and prolonged anger responses compared to typical reactions to provocation (DiGiuseppe & Tafrate, 2003).

Children with ADHD frequently exhibit heightened symptoms of anger compared to those without ADHD (Humphreys et al., 2012; King & Waschbusch, 2010; Singh, 2011; White et al., 2013). They may also be more inclined to adopt hostile attitudes and resort to aggressive approaches when faced with social problems (Noordermeer et al., 2016; Rubia, 2011), which can further increase the likelihood of experiencing anger outbursts. Moreover, males with ADHD seem to be at a greater risk of experiencing anger-related issues compared to females.

**CO-MORBIDITY**

ADHD frequently coexists with various psychiatric conditions, including depressive disorders, anxiety disorders, learning/intellectual disabilities, ODD, and CD. However, this study focuses on gender and age differences in three specific ADHD comorbidities: ODD (Bakare, 2012; Cuffe et al., 2020), CD (Pingali & Sunderajan, 2014), and anger (Tutian & Shechtman, 2015; White et al., 2013).

Among these comorbidities, ODD and CD appear to be more prevalent, with higher rates observed in boys compared to girls. Regarding age differences, most studies indicate a lack of variation in these comorbidities across different age groups.

Some studies indicate that children with ADHD often exhibit heightened symptoms of ODD (Bakare, 2012; Biederman et al., 2006; Cuffe et al., 2020; Pingali & Sunderajan, 2014) and CD (Cuffe et al., 2020; Sagar et al., 2019), leading to increased severity of symptoms and functional impairment compared to control groups (Eskander, 2020). In a review article focusing on outlining the psychosocial impact of ODD and CD comorbidity with ADHD, Eskander (2020) reveals that the co-occurrence exacerbates symptom severity and is associated with poor psychosocial functioning, difficulties in peer relationships and academic settings, and encounters with law enforcement.

AETIOLOGY

The exact cause of ADHD remains unclear (Steinhausen, 2009). However, genetic factors (Azeredo et al., 2018) have been implicated, leading to dysfunctions in brain networks, particularly in the dopaminergic system, resulting in impaired cognitive, mental, and behavioural functioning (Dirlikov et al., 2015; Kofman et al., 2008). The Dynamic Developmental Theory (DDT) proposed by Sagvolden et al. (2005) suggests that ADHD symptoms arise from a reduced dopamine signal in the frontal lobe of the brain, either in anticipation of or following a reinforcer or reward. The impulsivity observed in children with ADHD, compared to control groups, may stem from their inclination toward actions offering smaller immediate rewards over those requiring longer waits for larger rewards.

Impulsive aggression in ADHD is correlated with impaired prefrontal and cingulate activity, indicating a link between ADHD and aggression through shared neuropsychological deficits. Deficiencies in these areas often lead to socially unacceptable behaviour and reactions, such as shifting blame onto others for their own hostility, and a tendency to resort to impulsive and aggressive solutions for social problems (Noordermeer et al., 2016; Rubia, 2011). These findings suggest that genetic factors may require a conducive environment to manifest symptoms. Therefore, early identification and treatment of ADHD and its related comorbidities, including ODD, CD, and anger, are crucial, as the presence of these disorders may increase children's vulnerability to educational challenges.

**Living with ADHD, impact on the individual**

The symptoms of attention-deficit/hyperactivity disorder (ADHD) may heighten the likelihood of encountering various challenges during adolescence, particularly notable are interconnected issues concerning emotion regulation and peer relationships. These challenges have been proposed to play a role in the emergence of concurrent mental health issues like anxiety, depression, and conduct problems. These outcomes have been identified as significant areas for further research through consultations with experts who have lived experience with neurodiversity.

Emotion regulation refers to the processes through which individuals assess, control, or adjust their emotional responses to exhibit socially appropriate behaviour or achieve specific goals. When emotion regulation is impaired, it can manifest in various ways, such as difficulty in recognizing or understanding emotions, a lack of empathy, or heightened emotional reactivity. Compared to their neurotypical counterparts, adolescents with ADHD often demonstrate increased emotional reactivity characterized by intense, poorly controlled, or rapidly shifting emotions that may not align with their developmental stage or social context, impacting their functioning. This dysregulation can extend to positive emotions, resulting in excessive excitability.

Emotion dysregulation frequently coexists with and is believed to contribute to peer difficulties experienced by adolescents with ADHD, including bullying victimization and perpetration, peer aggression, rejection, and conflict. Due to their challenges in regulating emotions, adolescents with ADHD may respond more intensely and aggressively to provocations, making them targets for victimization and increasing their likelihood of displaying reactive aggression. They may also become overly excited, leading to difficulties in focusing on social cues and requirements in a given situation. Additionally, rejection sensitivity, characterized by heightened anticipation and reaction to social rejection, may further exacerbate these difficulties, potentially resulting from repeated experiences of rejection. Intense and dysregulated responses to perceived rejection, such as seeking excessive reassurance or displaying anger, may be off-putting to peers and contribute to a cycle of peer rejection.

Overall, it is observed that some adolescents with ADHD, due to their challenges in emotion regulation, may be perceived as intense, disruptive, or overly enthusiastic, which could increase their exposure to dislike, rejection, and victimization. Recognizing the interconnected nature of emotion regulation and behavioural inhibition, interventions aimed at improving social functioning in adolescence often prioritize the development of skills in self-regulating emotions.

Emotion dysregulation and peer difficulties are believed to play a role in the development of concurrent mental health and behavioural challenges associated with ADHD symptoms. Previous research conducted with children and adolescents has indicated that peer problems and emotion regulation act as mediators in the relationships between ADHD symptoms and various internalizing and externalizing problems. These include conditions like anxiety and depression as internalizing problems, and aggression, oppositional behaviour, and conduct problems as externalizing problems.

While children with attention-deficit hyperactivity disorder (ADHD) often hold elevated self-perceptions, most adolescents accurately report their challenges. They are typically cognizant of their ADHD symptoms and the associated academic and social difficulties. However, they often perceive these challenges as pervasive and uncontrollable, which can be maladaptive as it may deter them from seeking and adhering to psychosocial treatments. Additionally, adolescents with ADHD, especially those with co-occurring oppositional behaviour as reported by parents and teachers, may be less aware of their challenges compared to their peers with ADHD alone.

Adolescents with ADHD frequently perceive their problematic behaviour and disorder as stigmatizing. They express that their behaviours bother their parents and teachers and cause embarrassment. These perceptions align with studies demonstrating negative stereotypes about mental illness and ADHD behaviours in the community. Furthermore, adolescents with ADHD are more susceptible to being bullied by their peers, reflecting the societal stigma surrounding their condition.