

Understanding diverse minds

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There are natural variations in how the brain is wired to learn, process information



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A 48-year-educator, who asked to be called Adrian, has felt out of place throughout his life.

He lives with three neurodivergent conditions – autism, dyspraxia and dyscalculia – that were diagnosed only when he was around 18.

Autism means that Adrian finds it hard to understand social cues, and would offend people without knowing it. As dyspraxia causes difficulties in motor skills and coordination, he would appear clumsy. Dyscalculia affects Adrian's ability to understand and work with numbers.

Adrian finds it hard to make friends and fit in, and he was often mocked by his peers at school and when he was doing his national service.

"If you bully a person in a wheelchair, it's very obvious. But if a person has some strange quirks, and it stems from invisible conditions, people are less understanding and tend to ostracise and judge you prematurely without first taking into account your effort and sincerity of heart," he said.

Things came to a head in 2023 at work, where he was the last to pick up on the fact that two department heads were at loggerheads with each other.

He ended up being caught in the middle, and he eventually quit because the work environment got too toxic for him. That pushed him into depression, for which he is still taking medication.

"It's just an escalating baggage to carry, where you know that you can never truly belong anywhere," said Adrian, who is married without children.

Adrian is part of a group of neurodivergent individuals who also live with mental health conditions.

NEURODIVERGENCE AND MENTAL HEALTH – WHAT'S THE LINK?

Neurodivergence and mental health disorders are two separate afflictions.

Dr Celine Wong, senior consultant at National University Hospital's department of psychological medicine, said neurodivergence refers to natural variations in how the brain is wired to learn and process information.

"It is not inherently an illness, but rather a form of human diversity," said Dr Wong.

Some examples of neurodivergent conditions are autism spectrum disorder (ASD), attention deficit hyperactivity disorder (ADHD), intellectual disability and dyslexia.

In contrast, mental health conditions are clinical disorders that affect mood, thought, or behaviour, often leading to significant distress or impairing daily functioning. Common examples include depression, anxiety disorders and bipolar disorder.

"Unlike neurodivergence, mental health conditions are classified primarily as illnesses," said Dr Wong.

Pointing out that a person can be neurodivergent without having a mental health condition, Dr Wong said the reason people conflate the two is due to the way society and medicine have historically treated neurodivergence.

"In the past, conditions like ASD and ADHD were heavily pathologised and seen strictly as disorders to be 'fixed'. Modern perspectives, however, emphasise that these are differences rather than diseases, though they may bring challenges that require support," said Dr Wong, who noted that mislabelling can contribute to stigma.

While the conditions are distinct, neurodivergent individuals, especially those with ASD and ADHD, are significantly more likely to experience mental health difficulties.

Dr Wong said: "Neurodivergent individuals often experience sensory overload, social isolation and stigma. Many engage in masking or camouflaging their traits, which is strongly linked to burnout, depression and suicidality."

She added that research has found that around 80 per cent of autistic people will experience a mental health condition at some point, compared with about 25 per cent in the general population.

Meanwhile, between 35 and 50 per cent of those with ADHD also have depression, and many experience anxiety disorders.

HOW COMMON IS NEURODIVERGENCE IN SINGAPORE?

There are currently no official sta-

tistics on the number of new neurodivergent cases identified here each year. However, the most common neurodivergent condition in Singapore is ADHD, followed by ASD.

It is estimated that ADHD affects about 5 to 8 per cent of children in Singapore. And it is estimated that about 1 per cent of children in Singapore have ASD, said Dr Wong.

The Ministry of Health said that between 2021 and 2024, about 1,200 patients diagnosed with ADHD were seen annually at Singapore's public healthcare institutions. About 82 per cent of the patients were under 21 years old.

MOH added that while an upward trend in diagnoses has been observed in the past few years, further monitoring is needed to determine its significance.

Ms Moonlake Lee, founder of Unlocking ADHD, suggests that current estimates of ADHD cases in Singapore are conservative.

"Many people are still not familiar with ADHD, which means that they may have been experiencing challenges but do not know that it could be due to their undiagnosed condition."

The scarcity of ADHD-informed professionals capable of conducting diagnosis, coupled with the high cost of private diagnosis, is also a deterrent, she said.

Globally in the past decade, more people have been diagnosed with neurodivergence, in part due to better screening, reduced stigma and more support.

More adults in Singapore now also seek diagnoses that may have been missed in their childhood.

HOW CAN I TELL IF MY CHILD IS NEURODIVERGENT?

Mr Eugene Kheng, a clinical psychologist at Changi General Hospital, said the early signs of neurodivergence include delayed developmental milestones in language, motor, cognitive or social development.

However, individuals who are bright or who struggle with less overt difficulties, such as inattention, may not exhibit obvious behavioural signs as they may mask their challenges or go unnoticed.

Hence, it is important to see if they consistently struggle to meet expectations across different settings, even after their potential mental health conditions such as anxiety, mood or substance use disorders have been addressed.

ADHD in females, in particular, is frequently misdiagnosed or overlooked.

The typical image of someone with ADHD is often the stereotype of a hyperactive and rowdy boy who can't sit still, or someone who is impulsive and disruptive.

But ADHD can look different in females, who commonly have symptoms of inattention, so that they may appear to be daydreaming, careless, or procrastinate on tasks requiring sustained mental effort.

A 25-year-old working in the tech industry, who wanted to be known only as Cheryl, was diagnosed with ADHD only after she was admitted into the Institute of Mental Health (IMH) for a depressive episode when she was 17.

While initially diagnosed primarily with depression, her doctor decided to test her for ADHD after picking up on her symptoms of impulsivity. For example, Cheryl had quit her polytechnic course twice – both times on a whim.

Tests confirmed that her main diagnosis was ADHD, and she also suffered from depression.

For Cheryl, the revelations came better late than never.

Things began to make sense – like why she was especially sensitive to criticism and rejection.

It turned out that a portion of ADHD sufferers have a condition called rejection sensitive dysphoria.

This means that they often experience severe emotional pain because of failure or rejection. The condition is frequently linked with ADHD, as variations in brain structure can make it difficult for individuals to manage emotions triggered by rejection.

"I would also blame myself or have doubts that I'm good enough, and I think that that kind of emotion caused the depression," said Cheryl.

She used to fear rejection by her friends and tried to be a people-pleaser, which would land her in toxic friendships.

But after the diagnosis, she learnt to stop judging herself and set better boundaries.

"I learnt to know my value and my worth, and I didn't feel the need to get all this external validation from others. That's when issues started to resolve," said Cheryl.

Today, with medication for her ADHD, Cheryl also finds it easier to focus her attention on tasks and get work done.

She has since completed a private diploma and is currently taking a private degree.

WHAT IS THE AUTISM SPECTRUM?

ASD is characterised by a wide range of presentations, with the core features of persistent difficulties in social communication and a pattern of repetitive, stereotypic behaviours and restricted interests.

"While these symptoms are present in, and are diagnostic of, all individuals with autism, there is con-

siderable variation in how these core characteristics manifest," said Dr Sung Min, a senior consultant at IMH's department of developmental psychiatry.

"This has led to the term 'spectrum', illustrating how autism presents uniquely in each person."

Dr Sung, the mother of an adult son with autism, established the autism services at the hospital in 2006 to help other parents and their children.

A common challenge often voiced by caregivers of individuals with autism is that they have to be perpetually alert to potential social communication difficulties, sudden changes in routines, sensory overload, and other triggers that could lead to meltdowns.

Though autism awareness has increased significantly over the last 10 to 20 years, individuals with autism and their families still encounter daily challenges.

For instance, some members of the public may mistakenly attribute behavioural challenges to poor parenting, while others may display their discomfort by staring or deliberately moving away from individuals with autism, Dr Sung said.

These reactions often leave caregivers feeling embarrassed or misunderstood.

"Instead of showing fear or discomfort, what's needed are understanding, patience, and simple gestures of support – even a friendly smile can make a difference," said Dr Sung.

Ms Jacelyn Lim, the executive director of Autism Resource Centre (Singapore), said more support is urgently needed to help young adults with autism in the areas of living, learning and working.

"There is often an assumption that individuals on the autism spectrum cannot work or are able to only do simple, repetitive tasks," she said.

But, they can be very reliable workers. They can be good with tasks where attention to detail and accuracy are required, such as research work or data input, or those that require adherence to clear procedures like archiving, library work or filing, baking or packing, she said.

It is crucial to recognise and utilise the strengths of these individuals rather than focus on their limitations, even if not all may be suitable for employment, she said.

Another common misconception, even among parents of children with ASD, is that their behaviour is fixed for life and cannot be altered through intervention, said the parent of a teenager with ASD who wanted to be known only as Mrs Lim.

Denying a young child timely help by trained professionals keeps them from living their best life later on, she said.

"When our son was three, his psychologist said we should probably accept the fact that he will only eat a few types of food his entire life. At that time, he was hyper-choosy and we just accepted that," she said.

"Then, we sent him to a kindergarten for special needs children. By Primary 1, he was eating everything."

Mrs Lim said that the teachers at the school exposed him to different foods.

"They kept pushing his boundaries instead of giving in to his quirks."

For some neurodivergent people, having a diagnosis may open opportunities for treatment. For instance, people with autism and depression might receive medication for their mood and psychotherapy for the challenges that they face navigating a world that doesn't cater to them, said Mr Kheng.

And, someone with ADHD and comorbid psychiatric symptoms might receive medication, as well as psychotherapy or coaching for executive functioning. When that improves, so could the person's feelings of well-being.

Ultimately, for neurodivergent people, the benefit of having a diagnosis, even in adulthood, is about sense-making, Mr Kheng said.

It offers an opportunity for acceptance and closure.

Furthermore, a diagnosis can sometimes also resolve some of their co-occurring struggles with mood and anxiety, especially if these comorbid mental health conditions are perpetuated by self-esteem and self-identity issues, he said.

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