Neurodiversity – a whole-child approach for youth justice
Professor Amanda Kirby

HM Inspectorate of Probation
Academic Insights 2021/08

JULY 2021
## Contents

Foreword ........................................................................................................................................ 3

1. Introduction: What is neurodiversity? ................................................................................ 4

2. Recognising neurodiversity and tailoring approaches .................................................. 5
   2.1 Conditions and diagnoses ...................................................................................... 5
   2.2 Neurodiversity and adversity ................................................................................. 6
   2.3 Implications for youth justice and youth offending services .................................. 7

3. Conclusion ......................................................................................................................... 10

References ................................................................................................................................... 11
Foreword

HM Inspectorate of Probation is committed to reviewing, developing and promoting the evidence base for high-quality probation and youth offending services. Academic Insights are aimed at all those with an interest in the evidence base. We commission leading academics to present their views on specific topics, assisting with informed debate and aiding understanding of what helps and what hinders probation and youth offending services.

This report was kindly produced by Professor Amanda Kirby, summarising the evidence base around neurodiversity and the lessons for those working in youth justice and youth offending services. At least one in three people moving through the justice system are thought to be neurodivergent, and there is extensive evidence of co-occurrence between conditions, as well as interlinking with adversity and childhood traumas. The impacts can vary substantially, and crucially each child’s pattern of strengths and challenges will be different. Creating a formulation for each individual child, from information gathered from multiple sources, is thus required to fully understand the child in the context of their lives, enabling an inclusive, accessible, child-centred approach.

Within our inspections, we will continue to examine whether staff are empowered to deliver a high-quality, personalised and responsive service for all children, with an appropriate range of high-quality services in place. In relation to neurodiversity, it is clear that staff need to be supported through sufficient training and through the provision of appropriate tools.

Dr Robin Moore
Head of Research

Author profile

Professor Amanda Kirby is an emeritus professor at University of South Wales and honorary professor at Cardiff University. She is also a qualified medical doctor and has a PhD in emerging adulthood in neurodiversity. She has written eight books in the field of neurodiversity as well as 100 research papers. She is the CEO and founder of Do-IT Solutions, a tech-for-good company that has developed neurodiversity screening tools used in education, justice and employment settings. She has worked in justice and youth settings for more than 10 years. She can be contacted via amandak@doitprofiler.com.

The views expressed in this publication do not necessarily reflect the policy position of HM Inspectorate of Probation.
1. Introduction: What is neurodiversity?

Neurodiversity means that everyone’s brains are differently connected. The term is thought to have been coined by Australian sociologist Judy Singer in the late 1990s. It was a plea to move from seeing diagnosis of conditions such as dyslexia and autism as disorders with a focus on cure and prevention (known as a medical model) to a more social model of disability. The social model is at the heart of the United Nations Convention on the Rights of Persons with Disabilities, which identifies disabled people as having impairments that ‘in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others’. The term basically means the way we think, move, act, see, hear and process information varies for us all. Some of us do things differently from the ‘average’ person in society.

There have been a number of umbrella terms used now and in the past associated with cognitive differences, including:

- specific learning difficulties (SpLD) (used in education)
- neurodevelopmental disorders (NDD) (used by health professionals)
- learning difficulties and learning disabilities (LDD) (used in justice settings).

The varying terminology by different professionals is one of the reasons for confusion. A move to more consistent terminology is leading to the term neurodiversity increasingly being used. In the context of youth justice, many children will have had associated childhood traumas (see the earlier Academic Insights paper 2020/05 by Kieran McCartan), and sometimes there can be a focus on these traumas and a lack of consideration of the interaction with neurodivergent conditions.

**Neurodiversity is us all**

When there are degrees of variation, challenges may occur. For example, if you cannot read or write or cannot focus for long in class, when most people can, you may be seen as a nuisance or disruptive. It can also be harder to work at the same pace as others. If your speech is hesitant or it takes you longer to process what has been said, you may be reticent asking for clarification and then misinterpret an instruction given to you.

The term neurodivergence is used when we diverge from the average way we do things in society. Divergence can be related to great skills in some areas or having weaker skills or challenges in others. For example, someone can be fantastic with numbers or a great sports person, but may have challenges with handwriting, reading, spelling, or being able to socialise easily in a new or unfamiliar setting. Each person’s profile will be different; this is sometimes called a ‘spiky profile’.

Key facts and figures are as follows:

- **about one in six people** in the mainstream population are thought to be neurodivergent
- **one in four** in the unemployed population are thought to be neurodivergent
- **at least one in three** people moving through the justice system are thought to be neurodivergent; many will not have been diagnosed during school days.
2. Recognising neurodiversity and tailoring approaches

2.1 Conditions and diagnoses

The term ‘neurodiversity’ covers many different conditions, including:

- **Attention deficit hyperactivity disorder (ADHD)** – the person may be more impulsive and have challenges concentrating on tasks of less interest to them. Strengths include being able to see connections where others cannot.
- **Autism spectrum condition (ASC) also known as autism spectrum disorder (ASD)** – can lead to challenges with social communication and interaction with others and the person may have specific sensory preferences and dislikes. Strengths include being able to focus intensely on specific interests.
- **Developmental co-ordination disorder (DCD) also known as dyspraxia** – relates to challenges with physical coordination, with tasks such as handwriting, learning to drive and with self-organisation. Strengths include higher levels of empathy.
- **Dyscalculia** – is associated with challenges with maths, time concepts and managing money.
- **Dyslexia** – is associated with challenges with reading, spelling, comprehension of the words and the content of writing. Strengths include creativity.
- **Developmental language disorder (DLD)** – is associated with speaking, understanding and communicating clearly and picking up the nuances of language.

Other conditions include Tourette’s syndrome and auditory processing disorder (APD) (which affects the way that sounds are understood). Each person with a diagnosis may be different from the next person and they may not have challenges in all areas associated with the condition.

**No neat boxes**

Historically conditions such as dyslexia, dyspraxia, ADHD and ASCs were viewed as separate disorders or conditions. More recent research has shown these should not be considered as binary diagnoses, in that you either ‘have it or do not’, but more like continuous traits such as height or blood pressure where everyone lies somewhere along a continuum. The impact of having one or more condition for the individual can vary substantially.

There is extensive research that shows there is often overlap with one condition or another (also known as co-occurrence). For example, people with ASC\(^1\) often also have ADHD and dyspraxia. Each child’s pattern of strengths and challenges will be different (Cleaton and Kirby, 2018).

**Missed, missing or misdiagnosed**

In order for children to gain support and a diagnosis, they still often have to meet a set of criteria and they also need to be recognised as potentially having one or more conditions. There are many reasons why a child’s neurodivergent traits may have been missed. Parental

---

\(^1\) This is person first language, which puts the person before their diagnosis. Some people prefer identity first language which puts the diagnosis first, for example saying autistic people instead of people with ASC.
engagement with health and educational services may be limited (Astle and Bathelt, 2019). Some children may be or have been excluded from school and may move around the system (e.g. as a result of being a Looked After Child) (Oak Foundation, 2019). One or more of these factors may result in the child being less likely to have gained or gain a diagnosis.

Children from lower socio-economic groups are more likely to get a diagnosis of social, emotional and mental health (SEMH) needs, rather than autism or speech, language and communication challenges. This is called diagnostic overshadowing where we look for one thing more than another. For many children, ‘behaviour’ has been seen as the diagnosis without considering the underlying reasons.

SEMH needs have been defined as a type of special educational need in which children have severe challenges in managing their emotions and behaviour. They often show inappropriate responses and feelings to situations. Some characteristics of children with SEMH may include:

- disruptive, antisocial and uncooperative behaviour
- temper tantrums
- frustration, anger and verbal and physical threats/aggression
- withdrawn and depressed attitudes
- anxiety and self-harm
- stealing
- truancy
- substance misuse.

However, some of the above are also neurodivergent traits. Gaining a diagnosis may require screening using specific assessments. This can end up being an ‘all or nothing’ approach with scores below a given level not being registered as requiring a diagnosis or support, leaving the ‘missing middle’ not receiving help as they are not seen as ‘bad enough’. But the reality for many people is that they can experience challenges in a number of areas which interact and overlap, even if the individual challenges are not seen as severe enough to reach the diagnostic criteria. For example, someone may have difficulties with reading, attention and writing (challenges linked to three distinct conditions) but may not get a diagnosis of any of these specific conditions. The reading challenges faced by the child may not be ‘bad enough’ to gain a diagnosis of dyslexia, but still may cause difficulties for the child when trying to read legal documentation or engage in education.

2.2 Neurodiversity and adversity

There is good evidence now that past childhood trauma and a genetic risk of neurodivergent traits increases by six times the chances of that child having three or more neurodivergent conditions (Dinkler et al., 2017). This is additive, i.e. the sum of the parts is more than one on its own.

There are also higher rates of neurodivergent traits among children excluded from school, but usually no routine screening for these traits. In one study of excluded children, the rate of ASD was 20 times the national average (Barnard et al., 2000). In a large-scale longitudinal study in Avon, of those excluded by the age of eight, 19% had ADHD and 23% had language development in the bottom 10% (Paget et al., 2018). In an older study, involving a sample of pupils who had been permanently excluded from 33 Sheffield
secondary schools, it was found that about three in four (76%) were at least two years behind their peers in reading (Galloway et al., 1985).

Despite extensive evidence of co-occurrence between conditions and the interlink with adversity, we often still seek single diagnoses for children who have intersecting challenges (Cleaton and Kirby, 2018). Diagnoses may often be reliant on which professional the child has been referred to and the training they have had. For example, if the child sees someone with expertise in ASC, the specialist may not be trained to screen for ADHD or dyslexia. Without appropriate training, a professional screening for ADHD may not consider other reasons for attention problems and not ask about the child having had traumatic brain injury (TBI), which can present in a similar manner.

![Diagram of Adverse adult and childhood events]

2.3 Implications for youth justice and youth offending services

Communication and comprehension issues can have an impact on charges, cautions, bail conditions or court orders. For example, not being able to understand questions during interview can lead the child to make false admissions or ‘overly honest’ comments which may affect their defence (if not properly supported at interview, e.g. by an appropriate adult). If a child is not able to read written communications, they might not be able to comply with them, e.g. receiving a confirmation of a court date by post. Not understanding the case and evidence against them may result in the child pleading guilty (or not guilty), without being able to fully consider the effect that this may have on their case. Nodding or agreeing without understanding what has been said can have an impact during several points of the case: including police interview, first hearing and sentencing.

For a number of reasons, some children will not say that they are neurodivergent or mention their diagnosis(es) specifically. Many children will not know or may be reluctant to disclose because of past experiences of a negative response or bias against them, or fear of misunderstanding. Some children differ in their sensitivity about disclosing their challenges; some may not view themselves as disabled or it may be that they are not comfortable
disclosing personal information. Rather than focusing on diagnoses, it may be more helpful to look initially at behaviours and also, importantly, ask each individual if there are any aspects of communication that they find challenging or where they may need support, and adapt processes accordingly.

Children themselves have reported that they value being listened to and given a chance to ‘tell their story’, with practitioners taking the time to recognise them as individuals, understanding their specific needs and expectations. In some situations, negative impacts may be due to context (such as their lives both past and present) and structural settings (such as in a courtroom) rather than neurodivergence itself.

The *Equal Treatment Bench Book* was updated in spring 2020. It states: ‘Effective communication underlies the entire legal process: ensuring that everyone involved understands and is understood.’ It goes on to say: ‘Treating people fairly requires awareness and understanding of their different circumstances, so that there can be effective communication, and so that steps can be taken, where appropriate, to redress any inequality arising from difference or disadvantage.’ In order to support all children, it is essential that information is given in an accessible manner and also to check for understanding. Assuming that communication challenges are common would be very helpful for all.

There is clear alignment here with the relationship-based practice framework for youth justice which highlights the value of establishing relationships that are open and honest, and empathetic.

**A whole systems approach**

Bronfenbrenner (1978) described, in ecological systems theory, the importance of understanding the person in the context of their lives. Creating a formulation from information gathered from multiple sources can functionally support the child. This
potentially provides an equal opportunity for each child to gain support earlier and to reduce bias. If we continue to have a model that only intervenes within a narrowly framed diagnosis, we will inevitably see the same cycle of the person opting out of education, employment and eventually entering an intergenerational cycle.

To fully understand a child and apply a whole-child approach, it can be helpful to pay attention to the six Ps set out below. The focus on protective and positive factors aligns to desistance, strengths-based, trauma-informed and Child First models.

- **Preparation** – staff awareness about neurodiversity and mental health and wellbeing.
- **Precipitating challenges** – the understanding of tipping points for the child.
- **Perspectives** i.e., context e.g., home, school, family life, working life of parents.
- **Predisposition** to increased risk of ‘fall out’ from past and present events e.g., ACEs, illness, loss, Looked After Child, trauma and head injury.
- **Protective factors** e.g., scaffolds in place – parental support, intervention, nutrition, housing.
- **Positive factors** e.g., strengths, resilience, self-esteem, peers, family support.
3. Conclusion

At least one in three people in the justice system may be neurodivergent and they may also have a number of other challenges in their life, both past and present. In some youth offending groups, the rates are much higher, especially relating to ADHD and speech and language challenges. Bronfenbrenner was one of the first people to discuss the need to understand the ecology of each child, and a social-ecological framework for youth justice has more recently been promoted (Johns et al., 2017). By taking an inclusive approach to service delivery and design we can engage more people in an accessible manner.

Creating a formulation for each child means we move away from labels, to being more child-centred and towards inclusive and not exclusive approaches. It also means that appropriate referrals can be made, for example for support with ADHD.

In this last year, during Covid-19, children who are neurodivergent and also have childhood adversity are increasingly being recognised as more disengaged in society. As a consequence their needs are less likely to be identified and they will receive less support. This means that it is now more important than ever that neurodivergent traits are considered for every child presenting to youth offending services.

To aid interpretation and the achievement of shared goals for each child, there is a need for a common language and understanding. It is important that there is adequate and high quality training relating to neurodiversity which includes an understanding of co-occurrence that may be present and the intertwined relationship with childhood adversity and trauma. Staff need to have practical tools to support each child, with screening tools required at the point of engagement.\(^2\) To fully meet the needs of children, these tools need to be accessible and take a child-centred rather than a label-led or narrow siloed approach.

\(^2\) For similar recommendations in relation to adults within the criminal justice system, see Criminal Justice Joint Inspection, 2021.
References


Useful links

The Bradley Report, April 2009

Inclusive justice: a system designed for all, Equality and Human Rights Commission, June 2020

International Principles and Guidelines on Access to Justice for Persons with Disabilities, United Nations, August 2020

A Smarter Approach to Sentencing, Ministry of Justice, September 2020

Sentencing offenders with mental disorders, developmental disorders, or neurological impairments, Sentencing Council, October 2020
