

Screening for neurodivergent traits: The Do-IT Profiler system

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A diverse population of individuals come into contact with the criminal justice system (CJS), many of whom we recognise today have higher levels of often unrecognised learning difficulties, disabilities, or are considered to be neurodivergent. Various reports in the past, like the 'No One Knows' series and the 'Bradley Report',² have discussed how historically the needs of these individuals have been overlooked or inadequately addressed within the prison environment. This has led to poorer outcomes, greater rates of recidivism, and exacerbation of existing challenges such as remaining homeless when leaving prison.

At least one-third of the prison population have been described as having neurodivergent traits.³ This may be an underestimate as we may have assumed in the past that individuals who are neurodivergent will enter the justice system with an existing diagnosis and will be able to voice their needs. However, this is usually not the case. Many people entering the justice system lack any formal diagnoses and, even if they do, they may be concerned about or have difficulties expressing their specific needs. This may be due to higher levels of communication challenges, or concern that this may make them appear more vulnerable to their peers.

Encouragingly, over the past few years we have seen an increasing recognition by the Government and wider society about supporting people with neurodivergent traits, especially in the justice sector where there has been a call for more effective screening and support systems. The introduction of Neurodiversity Support Managers in most prisons in England and Wales is a big step towards raising awareness of this

population and their needs and amplifying this within the prisons.⁴

The Do-IT Profiler is an example of a screening system that can be used in prisons to support the identification of need amongst prison populations. Nearly 20 years ago the first paper was published about the Do-IT Profiler screening system,⁵ and 10 years later there was a published case study on the implementation of the Profiler in one prison and how it had been embedded in their daily processes.⁶ The gathering of data via this system has enabled further learning about neurodiversity amongst this population. Importantly, the findings from this body of research provide evidence of the need to gather comprehensive information across a person's life (past and present) to consider the compounding and accumulative impacts that may put someone at greater risk of poorer outcomes, including suicide and significant mental illness.

Understanding neurodiversity in the criminal justice system

Neurodiversity is the different ways we think, move, communicate, act and process information. Some of us have greater differences in some areas of cognitive functioning, and some describe this as having 'spiky profiles'. The 'spikes' may represent both strengths in some areas and challenges in others. These neurological differences may veer away from the 'typical' ways individuals may undertake day-to-day actions, have an impact on the person and can create challenges in fitting into society, in education and in workplaces. We use the term *neurodivergent* to

1. Prison Reform Trust. (2007). *No one knows: Prisoners with learning difficulties and learning disabilities – England and Wales*. Prison Reform Trust.
2. HM Crown Prosecution Service Inspectorate. (2021). *A joint thematic inspection of the criminal justice journey for individuals with mental health needs and disorders*. HMCPSP.
3. Criminal Justice Joint Inspection. (2021). *Neurodiversity in the criminal justice system: A review of evidence*. Criminal Justice Joint Inspection.
4. UK Government. (2024, May 16). *Greater support for neurodivergent offenders in bid to cut crime* [Press Release]. <https://www.gov.uk/government/news/greater-support-for-neurodivergent-offenders-in-bid-to-cut-crime#:~:text=Neurodiversity%20support%20managers%20are%20now,adult%20prison%20population%20is%20neurodivergent>
5. Smith, J., & Kirby, A. (2006). Identification and implication of specific learning difficulties in a prison population. *Forensic Update*, 84, 15–19.
6. Kirby, A., & Saunders, L. (2015). A case study of an embedded system in prison to support individuals with learning difficulties and disabilities in the criminal justice system. *Journal of Intellectual Disabilities and Offending Behaviour*, 6(2), 112–124.

describe this move away from the 'average or typical' approaches. These cognitive variations, however, are a form of human diversity.

Autism Spectrum Conditions/Disorders (ASC/ASD), Attention Deficit Hyperactivity Disorder (ADHD), Dyspraxia (also known as Developmental Coordination Disorder (DCD)), Dyscalculia, Developmental Language Disorder (DLD), and Dyslexia are often included under the umbrella term of neurodivergent traits and conditions. They are grouped together as people often have overlapping challenges i.e., they co-occur. Another condition impacting a person's cognition includes traumatic brain injury (TBI) which is also much more common in justice settings than in the general population.⁷

Why screen for neurodivergent traits in the criminal justicesystem?

A growing body of research has identified a disproportionately high prevalence of neurodivergent individuals within the CJS compared with the general population.^{8,9} This overrepresentation is often linked to systemic factors, including poverty, care experience, homelessness, and exclusion from education. This can lead to less opportunity for early diagnosis and intervention in childhood, and the failure of educational systems to recognise needs and provide support for some neurodivergent individuals effectively. In addition to this is the impact of adversity and social disadvantage which results in many people entering the justice system with their needs not being identified.¹⁰ A range of adversity, combined with different combinations of neurodivergent traits, has been shown to have a cumulative and adverse effect.¹¹ Transdiagnostic models of functional ability across domains frequently impacted by neurodivergence are, therefore, more applicable and required in the CJS to recognise and respond to the multiple and varied needs of individuals.

Practically, neurodivergent traits could result in a significant number of people in the prison population who have difficulties understanding oral and written communication. This can result in them being more vulnerable and at risk of negative consequences from not adhering to rules or instructions, alongside a lack of

ability in understanding the legal and justice processes. It is well documented that conditions such as ADHD, ASD, DCD, DLD, Dyslexia and TBI are all associated with reduced academic achievement, unemployment and/or poor employment.¹² This highlights the importance of screening for neurodivergent traits and for them to be recognised and supported, enhancing the opportunities for rehabilitation and successful resettlement back into the community.

What to screen for in prison?

In the past, while there has been interest in considering neurodivergent traits and conditions, we have often focused more on men in prison, and on screening for specific conditions in isolation, e.g., Dyslexia, ADHD or ASD. The challenge with this approach is that many conditions often overlap with each other.¹³ Specifically, in the prison context we have found that while there are higher rates of DLD,¹⁴ ASD and ADHD traits compared with the general population, the greatest impact for the person is the accumulation of different cognitive factors across different conditions, rather than being clearly defined and falling neatly within one single condition. The reality is, unless we consider the varying factors of adversity and neurodivergent traits, we may miss intersecting and compounding factors. This may change the potential of interventions, their design, and their effectiveness, highlighting the need to screen for multiple neurodivergent traits and related conditions. This includes TBI, as without specifically and routinely enquiring about this when screening, TBI may be missed all together or considered to be symptoms associated with ADHD. Importantly, unless there is screening across neurodivergent related conditions, needs will not be efficiently and comprehensively identified to allow the best possible chances of supporting individuals in this setting.

Screening for young people

When we look at young people in the justice system and consider who has greater challenges, we

7. Kent, H., & Williams, H. (2021). *Traumatic brain injury*. HM Inspectorate of Probation.
8. Kent, H., Magner-Parsons, B., Leckie, G., Dulgar, T., Lusiandari, A., Hogarth, L., Williams, H., & Kirby, A. (2024). Profiles of vulnerability for suicide and self-harm in UK prisoners: Neurodisability, mood disturbance, substance use, and bullying. *PLoS One*, 19(1), e0296078.
9. See footnote 3: Criminal Justice Joint Inspection. (2021).
10. Francés, L., Ruiz, A., Soler, C.V., Francés, J., Caules, J., Hervás, A., Carretero, C., Cardona, B., Quezada, E., Fernández, A., & Quintero, J. (2023). Prevalence, comorbidities, and profiles of neurodevelopmental disorders according to the DSM-5-TR in children aged 6?years old in a European region. *Front Psychiatry*, 10, 1260747.
11. Dinkler, L., Lundström, S., Gajwani, R., Lichtenstein, P., Gillberg, C., & Minnis, H. (2017). Maltreatment-associated neurodevelopmental disorders: a co-twin control analysis. *J Child Psychol Psychiatry*, 58(6), 691-701.
12. French, B., Nalbant, G., Wright, H., Sayal, K., Daley, D., Groom, M, J., Cassidy, S., & Hall, C, L. (2024). The impacts associated with having ADHD: An umbrella review. *Front Psychiatry*, 21(15), 1343314.
13. Cleaton M. A. M., & Kirby, A. (2018). Why do we find it so hard to calculate the burden of neurodevelopmental disorders? *J Child Dev Disord*, 4(3), 10.
14. Winstanley, M., Webb, R. T., & Conti?Ramsden, G. (2021). Developmental language disorders and risk of recidivism among young offenders. *Journal of Child Psychology and Psychiatry*, 62(4), 396-403.

can see rates of ADHD, for example, as high as 74 per cent among young people who have been sentenced multiple times.¹⁵ Young people have been noted to be particularly at risk of missing out on appropriate diagnosis and support. Several factors can contribute to this including the reality that parental engagement with health and education services may have been limited, making early identification less likely. Additionally, these young people often have had disrupted educational histories, like school exclusion or being moved around the child welfare system. Young people who have been under institutional care also often have a complicated trajectory, making them particularly susceptible to being missed or incorrectly diagnosed. This all contributes to a lack of formal diagnosis and the necessary support being in place, highlighting the importance of screening for young people in the justice system.

Screening for women

Relatively recent research in the general population has shown that women with ADHD and ASD present differently to men with the same conditions.¹⁶ These differences have often led to underdiagnosis or misdiagnosis altogether. Women with ADHD, for example, often show less disruptive symptoms and are more likely to be inattentive, making their condition less obvious to others when in school. Similarly, women with ASD generally have presentation styles that are different from men, masking how they are feeling, and may include higher levels of social motivation and fewer repetitive behaviours. They are more likely to have been identified with mental health conditions rather than ASD or ADHD.¹⁸ This may mean that the presentation and history given by women in prison may not align to any formal diagnoses they have and their experiences, making screening a vital support mechanism.

Having an embedded system in prisons

In a prison context, an embedded system refers to a specialised, integrated solution designed to address specific needs within the environment, particularly in the management, support, and rehabilitation of people in the prison system. These systems are 'embedded' into the everyday operations of the prison, meaning the information can be integrated into existing processes, routines, and infrastructure to function seamlessly within the prison setting. Embedded systems can potentially be integrated into the daily operations and existing systems, including prisoner management software, educational programmes, or healthcare services. They can often automate routine tasks such as, in this context, undertaking the screening of all prisoners for neurodivergent traits and other related factors.

What is the Do-IT Profiler system?

The Do-IT Profiler is an example of a tool that can be part of an embedded system and was first developed in prisons more than 15 years ago.¹⁹ The validity of the tool has been established in a series of papers published from as early as 2006 through to 2024.^{20 21} The first iteration of the embedded system recognised the overlapping nature of neurodivergent conditions and was developed by

comparing different populations, including mainstream, justice and clinical populations and highlighting the differences in prevalence rates. The system was developed especially to aid identification of a range of neurodivergent traits and captures other background information such as educational experience, exclusion and history of brain injury. The outputs provide a personalised picture of strengths and challenges to aid in providing support for people with additional learning needs and neurodivergent traits.

The reality is, unless we consider the varying factors of adversity and neurodivergent traits, we may miss intersecting and compounding factors.

15. Young, S., Moss, D., Sedgwick, O., Fridman, M., & Hodgkins P. (2015). A meta-analysis of the prevalence of attention deficit hyperactivity disorder in incarcerated populations. *Psychol Med*, 45(2), 247-58.
16. Mayes, S. D., Castagna, P. J., & Waschbusch, D. A. (2020). Sex Differences in externalizing and internalizing symptoms in ADHD, autism, and general population samples. *J Psychopathol Behav Assess*, 42, 519-526.
17. Kirby, A., Williams, W. H., Clasby, B., Hughes, N., & Cleaton, M. A. M. (2021). Understanding the complexity of neurodevelopmental profiles of females in prison. *International Journal of Prisoner Health*, 17(4), 425-438.
18. Attoe, D. E., & Climie, E. A. (2023). Miss. Diagnosis: A systematic review of ADHD in adult women. *J Atten Disord*, 27(7), 645-657.
19. See footnote 6: Kirby, A., & Saunders, L. (2015).
20. Smith, J., & Kirby, A. (2006). Identification and implication of specific learning difficulties in a prison population. *Forensic Update*, 84, 15-19.
21. See footnote 8: Kent et al. (2024).

From its first steps conceptually to today, it has been developed and tested with the continuing support from forensic psychologists, educational psychologists, teachers, end users (people detained in prisons), health professionals working in the field of neurodivergent conditions, and medical professionals.

The modular screening system sits on a management platform, accessible to people in prison where they can complete the screening tool themselves as part of a group session facilitated by staff. There is an accompanying training video to explain what is being asked and why. The system then collects and processes data in real-time allowing prison staff to understand people's communication needs and deliver timely interventions and targeted support where necessary. The Do-IT tools screen for neurocognitive abilities and functional skills to quickly understand a person's learning and communication needs, and can highlight if further assessments may be needed. The system also captures background factors including mental health and wellbeing in recent times and the past, and about specific physical (including brain injury) and sensory needs. Importantly, the Profiler system is accessible in design and delivery allowing, for example, those with low literacy levels or who may have English as an additional language, to effectively access the screening tools.

In a roll out of the system in a prison (unpublished), the average completion time for 'basic' initial neurodiversity screening based on 4000 prisoner completions was between 21-25 minutes. Once completed, the screening tool immediately and automatically generates an in-person report with practical and easy to use guidance for both staff and the person in prison. The reports flag those where further assessment may be required and indicates those with potentially higher level of learning needs, indicating where there are specific challenges. The individual person's report collates the information into strengths and challenges, providing guidance which has been developed for the prison context. The guidance and outputs have also been designed to be

accessed by adults who have an average reading age of 8-9 years, recognising that many prisoners may have high support needs relating to literacy, dyslexia, or communication challenges.²²

The flagged information can be used by suitably qualified professionals, including those in psychology services, learning disability services, nursing, or specialist education, to guide their decisions on a need for further assessment for diagnosis of particular conditions. By offering clear, targeted recommendations, the tool supports both educational and rehabilitative outcomes, enabling the individual to receive the right support at the right time. The data from the system can also support the identification of wider potential support services across the prison regime.

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What learning have we gained from Data from the Do-IT profiler so far?

One of the advantages of applying systems like the Do-IT Profiler is that it enables the gathering of large datasets to help further explore prison populations and therefore to better examine the variety and complexity of neurodivergent traits within these.

Young people

The data gathered suggests that more than half of the young people in the CJS screened using

Profiler tools have one or more neurodivergent traits.²³ Seven percent had traits relating to three conditions and 8 per cent had traits associated with four co-occurring conditions. Less than a third of the young people presenting with ADHD traits had a prior diagnosis of ADHD, and there was a similar picture for Dyslexia. The pattern of adversity reported demonstrates how incorrect assumptions may be made if there is an incomplete history. For example, of the young men with severe functional difficulties, nearly a quarter reported having experienced at least one head injury, and a sixth reported having experienced at least one head injury with loss of consciousness.²⁴ It is possible, therefore, that for some, their difficulties are acquired rather than developmental. There is the

22. NOVUS. (2023). *Breaking prisoner recidivism cycle with functional skills*. Available from <https://www.novus.ac.uk/news/functional-skills-in-prison-education/>.

23. Kirby, A., Williams, W., Clasby, B., & Cleaton, M. (2020). Young men in prison with Neurodevelopmental Disorders: missed, misdiagnosed and misinterpreted. *Prison Service Journal*, 257, 46-58.

24. Sinopoli, K. J., Schachar, R., & Dennis, M. (2011). Traumatic brain injury and secondary attention-deficit/hyperactivity disorder in children and adolescents: the effect of reward on inhibitory control. *J Clin Exp Neuropsychol*, 33(7), 805-19.

potential if we do not consider TBI that it may be misdiagnosed or missed, and symptoms will be associated with ADHD instead.²⁵ The findings also highlight that the Profiler can not only support individuals who have traits that fall into a specific condition, but also those who have a mixed pattern of neurodisability or co-occurrence who may otherwise have been missed, misdiagnosed or misunderstood. The Profiler can lead to more specific and tailored intervention, or signposting them for further assessment for formal diagnosis.

Adult women

A study published in 2021 was one of the first to explore the relationships between functional difficulties (including communication, coordination, organisation, literacy, and numeracy), neurodivergent traits, mental health, and head injuries among incarcerated women.²⁶ It examined the potential associations with neurodivergent conditions, mental health conditions, head injuries, self-harm, and suicide attempts.

Of the 87 women screened, half reported difficulties in one or more functional cognitive domains. Important to note was that all possible combinations of difficulties were present. Despite the level of challenges, only eight women reported a previous neurodivergent diagnosis, suggesting significant under-diagnosis or lack of recognition. The study found a strong association between neurodivergent traits and a history of self-harm, suicide attempts, and mental health diagnoses. Head injuries were reported by 32 per cent of participants but were not significantly linked to functional difficulties.

The research highlighted, at the time, the inadequacies of current systems in identifying women with functional impairments and adversity in the justice system and the widely varying presentations. If the women had been screened for one neurodivergent condition, their cumulative functional challenges would have been missed.

The findings suggested the need for comprehensive profiling of women in prison and emphasised the need for interdisciplinary collaboration and shared training across professionals in the prison systems.

Adult men

Several papers have been published reviewing large samples of data from the male prison population with some important findings, particularly around the impact of early life experiences. One study examined whether factors such as neurodivergent traits or conditions, substance use, school exclusion, homelessness, and unemployment persist in Looked After Children (LAC) who were subsequently imprisoned.²⁷ Data from 2,832 sentenced men were analysed, comparing those who were LAC (n = 631) to those who were not (n = 2,201). The findings indicated that those who were LAC had higher rates of traits associated with dyslexia, ADHD, ASC and DCD.

Additionally, LAC were more likely to have experienced exclusion from mainstream education, with 24 per cent having attended a Pupil Referral Unit (PRU; a facility for children excluded from mainstream education). LAC were also more likely to struggle with substance use problems, homelessness, unemployment and inability to work due to disability. These findings suggest that people who have been 'multi-system children' have faced multiple layers of disadvantage that may persist into adulthood, and which may contribute to their over-representation in the CJS. The study underscores the importance of targeting people who have a history of being LAC, and their recognised increased vulnerability. It also highlights the intersection with several adverse events that may have a cumulative impact in the person.

A second study reiterated these findings and examined the relationship between school exclusion, neurodivergent traits, and age at first conviction among 3035 convicted adult men in one prison, once again using data from the screening tool.²⁸ The findings

There is the potential if we do not consider TBI that it may be misdiagnosed or missed, and symptoms will be associated with ADHD instead.

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25. van der Kolk, B. (2018). The John Bowlby Memorial Lecture 2006. Developmental trauma disorder: a new, rational diagnosis for children with complex trauma histories. In S. Benamer, & K. White (Eds.), *Trauma and attachment* (pp. 45-60). Routledge.
26. Kirby, A., Williams, W. H., Clasby, B., Hughes, N., & Cleaton, M. A. M. (2021). Understanding the complexity of neurodevelopmental profiles of females in prison. *International Journal of Prisoner Health*, 17(4), 425-438.
27. Kent, H., Kirby, A., Leckie, G., Cornish, R., Hogarth, L., & Williams, W.H. (2023). Looked after children in prison as adults: life adversity and neurodisability. *Int J Prison Health*, 19(4), 512-523.
28. Kent, H., Kirby, A., Hogarth, L., Leckie, G. B., Cornish, R. P., & Williams, H. (2023). School to prison pipelines: Associations between school exclusion, neurodisability and age of first conviction in male prisoners. *Forensic Science International: Mind and Law*, 4, 100123.

indicated a strong association between school exclusion and earlier first convictions, with multiple exclusions correlating with progressively younger ages of first contact with the CJS. Specifically, and importantly, those excluded once, 2—3 times, and four or more times were convicted 3, 5, and 6 years earlier (respectively) on average than those never excluded. Additionally, 45 per cent of the excluded cohort had been sent to a PRU. These individuals were first convicted 2 years earlier than those excluded but not referred to a PRU, and 6 years earlier than those never excluded, suggesting that PRU referral is associated with an increased risk of earlier conviction compared with exclusion alone. Impact related to neurodivergent traits, indexed by lower scores on the neurodivergent screener within the Do-IT system, were also linked to younger ages of first conviction. Each standard deviation decrease in functional skills was associated with a 0.5 year earlier conviction age. Moreover, a correlation between school exclusion and functional skills scores suggested that exclusion may be a pathway to criminalisation for children with neurodivergent traits.

This study and the previous one highlight the critical link between school exclusion, neurodivergent traits, and earlier CJS involvement, emphasising the need for more targeted interventions to prevent children with neurodivergent traits from becoming entrenched in the system. Adults with this history, if they are already in the CJS, also need to be recognised as requiring greater support in areas like employment, housing, and substance use, to aid their reintegration into the community post-release.

Mental illness and neurodivergent traits

One of the latest research studies to be published, in 2024, highlighted the importance of screening for vulnerability factors, alongside screening for neurodivergent traits.²⁹ This includes asking about suicidality and self-harm among people upon entry to prison to aid the effective allocation of limited mental health resources. Using data from 665 adult men in a category B prison, 12 per cent reported a history of attempted suicide, 11 per cent reported self-harm, and 8 per cent reported both. The results from this study found that a history of TBI and substance use increased the odds of a suicide attempt by 3.3 and 1.9 times,

respectively. However, these factors were not significantly associated with a history of self-harm. Notably, individuals who experienced bullying at school had 2.7 times higher odds of reporting a history of self-harm. The most significant factors linked to both historic suicidality and self-harm were higher levels of neurodivergent traits alongside mood disturbance.

Lessons learned from using the Do-IT profiler over more than 15 Years

Initially, some staff in some prisons were resistant to the additional workload they thought would be posed by using the Profiler tools. Continuous engagement and demonstrating the effectiveness of

the tools were essential to overcome this challenge. They could see that in less than 30 minutes the screenings could be completed by people detained in prison in a group setting, with staff support. By seeing the value of the instantly available personalised guidance, it helped better conversations to happen early on. The guidance produced by the Profiler has also proven useful for planning in education and resettlement settings.

Staff training is essential, but not onerous, when using the tools. The training has been shown to develop a deeper

understanding of the patterns of neurodivergent traits across conditions and the intersection with adversity. Step by step videos aiding the training are also embedded into the system for staff to access. Ongoing training ensures staff can effectively interpret the profiling results and provide the necessary support. A collaborative, holistic approach is key to ensuring maximum benefit for people and ensuring that data from the system is utilised across the prison estate.

Conclusions

Large scale screening of neurodivergent traits is no easy feat to undertake in criminal justice settings, especially given the backdrop of other factors that can mimic or complicate neurodivergent traits. Accurately diagnosing neurodivergent conditions involves a set of internationally recognised criteria, like DSM-5 and ICD-11. Yet diagnosis is not always straightforward. Adverse childhood experiences and TBI can lead to symptoms that may mimic neurodivergent traits. So, the presence

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29. See footnote 8: Kent et al. (2024).

of these factors can blur the lines, making an accurate diagnosis difficult. Co-occurrence of neurodivergent conditions is also very common. Misdiagnosis often happens when we do not take note of these different factors. Cumulative adversity and neurodiversity can have an amplifying effect and a compounded negative impact on an individual's life.

People with neurodivergent conditions, like ADHD and ASD, are more likely to experience other mental health issues and have a higher risk of suicide. Studies have indicated that suicidal ideation, attempts, and completions are more frequent among those with ADHD, ASD, dyslexia, and intellectual disabilities.^{30 31 32} Other mental health conditions may also include anxiety disorders and depression, as well as eating disorders and schizophrenia. Studies from prisons using the Do-IT Profiler and other research underscore time and time again how easily individuals can fall through the diagnostic cracks. Many do not fit neatly into one diagnostic category, requiring a more nuanced approach to identification and support. This is especially seen in women. The findings suggest that prisons should screen for broader profiles, including a range of neurodivergent traits and mood disorders, to better

identify and support people at risk of suicide and self-harm. The findings from a range of studies have also emphasised the need to be aware of the negative impact of being a 'multi-system child', e.g., having experience of care, being excluded from school or at risk of homelessness, and the alternative picture where there is the positive impact of having predictable systems.³³ This is important for our upstream preventative work and the need to raise awareness in educational and community settings too.³⁴

The Do-IT Profiler system has enabled insight into neurodivergence and screening practices in prisons. It has highlighted the need for full, holistic prison awareness and engagement when developing programmes of education and resettlement to ensure they are inclusive and accessible for all. The need for multidisciplinary care pathways is crucial, especially for prisoners with complex multi-morbidities, such as those with brain injuries and a mix of neurodivergent traits, who may require adapted mental health interventions. Understanding these vulnerability factors can also foster more compassionate responses from prison staff, ultimately enhancing the care provided to people with higher level needs.

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 33. Davis, E. P., & Glynn, L. M. (2024). Annual Research Review: The power of predictability - patterns of signals in early life shape neurodevelopment and mental health trajectories. *J Child Psychol Psychiatry*, 65(4), 508-534.
 34. Kirby, A. (2024). *Ethnically diverse children and neurodiversity: Pinball systems, snakes and ladders, or person-centred provision*. Available from: <https://allianceofsport.org/news/new-report-pinball-systems-snakes-and-ladders-or-person-centred-provision/>