Chapter 1

Introduction

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What Are Neurodevelopmental Disorders?

Neurodevelopmental disorders have their onset in the developmental period and are lifelong. Within the *Diagnostic and Statistical Manual of Mental Disorders*, 5th edition: DSM-5 [1] they include intellectual disability (ID), attention deficit and hyperactivity disorder (ADHD), autism spectrum disorder (ASD), communication disorders, specific learning disorders and tic disorders. Neurodevelopmental disorders present with impairments across personal, social, academic or occupational functioning. The symptoms can include symptoms of excess such as hyperactivity as observed in ADHD or repetitive behaviours as seen in ASD as well as deficits such as cognitive impairment in those with ID or social impairment in those with ASD. All neurodevelopmental disorders share elements of social impairment, cognitive impairment and difficulties in emotional regulation. They are a heterogeneous group of conditions not only clinically but genetically, with a spectrum of presentations. Recent evidence points in the direction of genetic links between specific neurodevelopmental disorders such as ADHD and the wider group of neurodevelopmental disorders [2]. In addition, individuals with neurodevelopmental disorders share risks with other offenders for a number of psychosocial stressors such as social deprivation, early adversity, trauma, educational disengagement, rejection and bullying by peers as well a susceptibility to negative peer pressure when growing up [3].

From a biological perspective there is also a variation in the underlying pathology of neurodevelopmental disorders; for example, boys with ADHD have grey matter volume reduction in the right posterior cerebellum whereas boys with ASD have grey matter volume enlargement in the left middle temporal gyrus and superior temporal gyrus [4]. There are also recognised neurochemical differences between the disorders; for example, glutamate/gamma-aminobutyric acid (GABA) imbalance found in those with ASD [5] and catecholamine/dopamine imbalance in those with ADHD [6]. Cortical GABAergic interneurons are specified during the early formation of the brain within the ganglion eminences in which GABAergic interneurons develop so these cells are defined before they reach the developing cortex [7]. Such advances in neuroscience may one day lead to a better understanding of the origins of neurodevelopmental disorders. Even within one disorder such as ASD there is a significant challenge in delineating a specific dysregulated neurotransmitter system [8]. Other research at a biological level points to a pathway from genes to function involving various proteins and these common pathways include semantic plasticity/function, chromatin remodellers and the mammalian target of the rapamycin pathway. Further understanding of the mechanism behind these pathways will hopefully lead to targeted treatment approaches for individuals with neurodevelopmental disorders [9]. Research focusing on

https://doi.org/10.1017/9781108955522.001 Published online by Cambridge University Press

these semantic proteins may decipher the link between semantic signalling and the regulations of gene expression and protein synthesis to aid the identification of any shared pathogenic mechanisms across the neurodevelopmental disorders.

The Direction of Travel for Research on Neurodevelopmental Disorders

The *Lancet* Commission on the future of care and clinical research in autism concluded that research which had an immediate benefit for autistic people should be prioritised and that autistic people had similar needs to those with other neurodevelopmental disorders, so any advances for those with autism would benefit individuals with other neurodevelopmental conditions [10]. The research charity Autistica reported on research investment and research priorities in the UK between 2013 and 2016 [11]. It found there has been a relative lack of research producing evidence on the best ways for adult services to meet autistic people's day to day needs. There was a steady rise in investment for research into treatment and interventions, with a short rise in biology-based research from 2015 to 2016, which is reflected in the more recent published evidence. Investment in screening, diagnosis and service research peaked in 2014, which is most relevant to the current needs of autistic people in contact with the criminal justice system.

A recent special edition published by the *British Journal of Psychiatry* on neurodevelopmental disorders found that publications were mainly longitudinal cohort studies of large sample size, so increasing understanding of outcomes over time [12]. The recommended research priorities by the National Institute for Health and Care Excellence covering various neurodevelopmental disorders emphasises further work that looks at interventions, particularly psychological and pharmaceutical interventions in those with complex presentations [13]. The importance of early recognition of specific disorders, such as ADHD in females, for example, and the use of preventative interventions in girls with ADHD, may be key to improving long-term outcomes, such as high risk for self-harm [14]. The emphasis is on developing the evidence much more in children and young people with neurodevelopmental disorders and this is in keeping with previous work by Murphy et al., in 2018 [15]. This was a longitudinal study of individuals with ASD and ADHD in which significant unmet needs of those transitioning through adolescence and into young adult life was identified. A major contributor to unmet needs was the presence of associated mental health symptoms. Most of the young people were undiagnosed and so untreated by clinical services. The key finding was that the largest determinant of service provision was age and not the severity of symptoms. In essence, if the young person was identified early in life, this was more likely to ensure that they had their needs met. For example, in ADHD, each one-year increase in a young person's age reduces the odds of being seen by services by 38%.

Research focusing on forensic mental health services for neurodevelopmental disorders is limited worldwide, including in high-income countries [16]. A more focused and collaborative research agenda is required for forensic health services research, which must include those with neurodevelopmental disorders. Currently, research into neurodevelopmental disorders for those in contact with the criminal justice system is evolving but remains underdeveloped with a lack of parity in funding and academic capacity compared with general forensic services. Agreement exists amongst clinicians that universal screening should be in place across countries and jurisdictions [17], but due to a lack of research there is no consensus to inform an agreed international approach to screening and how the

https://doi.org/10.1017/9781108955522.001 Published online by Cambridge University Press

criminal justice and/or correctional systems respond to vulnerable defendants with neurodevelopmental disorders. Saying this, there is a broad agreement by clinicians that defendants with neurodevelopmental disorders do require support through the legal process and during court proceedings. However, there is a divergence of disposable options across jurisdictions for those with neurodevelopmental disorders, which could range from being hospital focused to some form of mandated secure care or prison sentencing. Further evidence is required to understand this variation in practice and, as discussed below in relation to the recent sentencing guidelines for England and Wales, there is a lack of research, for example, on the relationship between sentencing and optimal outcomes for this group of defendants.

Policy and Neurodevelopmental Disorders

An editorial on mental healthcare highlights that the policy aim of the past 30 years of delivering high-quality healthcare across the criminal justice and correctional services in the least restricted environment, that is, an environment that enables a person with as much choice and self-direction as safely appropriate, has not been achieved for those with mental illness [18]. This needs to be acknowledged if we are to address the healthcare needs of those with neurodevelopmental disorders also in contact with the criminal justice system. The recent review of evidence on neurodiversity in the criminal justice system [19] for England and Wales looked at screening, support and training. This review found good evidence of local partnerships, but it was clear that such provision is patchy, uncoordinated and too little is being done to meet the needs of those with neurodivergent conditions. The main recommendation was that a coordinated and cross-government approach is required to improve outcomes for neurodivergent people within the criminal justice system. The review also accepted that there is no universally agreed definition of neurodiversity, but clearly that up to half of those entering prison may have some form of neurodivergent condition that impacts on the person's ability to engage with rehabilitation within a prison setting.

The national strategy covering England titled 'Autistic children, young people and adults: 2021 to 2026, policy paper' [20] has elevated the profile and needs of neurodivergent offenders within the chapter on improving support within the criminal and youth justice systems. The main emphasis of this strategy is to improve the experience of autistic people coming into contact with the criminal and youth justice systems by ensuring staff have a better understanding of autism and the needs of autistic people. Several areas were highlighted in which support can be improved, including ensuring adjustments that assist the autistic person to participate in sentencing and rehabilitation, alongside early identification so that appropriate supports can occur in a timely manner. It is recognised the current poor support results in autistic people having difficulty accessing health and social care services or even general support on leaving custody. As a result, National Health Service (NHS) England are rolling out a new service called RECONNECT to provide care after custody for people leaving prison who have ongoing health vulnerabilities, including autistic people. The service starts working with people before they leave prison to ensure those with recognised vulnerabilities are engaged with community-based health and care services on leaving prison.

Guidance from NHS England for health commissioners, providers and staff working in prison sets out a number of guiding principles for people with ID. These include a rights-based approach, person-centred care, early identification and appropriate support, an informed workforce and working in partnership with all types of health services and

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other agencies to develop a whole prison approach [21]. This guidance strongly recommends prisons employ a learning disability nurse or practitioner based within the primary or secondary prison health service, ensuring that the prisoner with ID has a care plan and annual health check.

From 1 October 2020, a new guideline for England and Wales on sentencing adults with mental disorders including those with developmental disorders and neurological impairments came into place [22]. The emphasis of the guidance is on community orders with treatment requirements but the research evidence on taking this approach is limited for defendants with mental and neurodevelopmental disorders [23]. The sentencing guideline also covers the subject of assessing culpability and the sentencer must consider whether, at the time of offence, the offender's impairment or disorder impacted on their ability to excise appropriate judgement, make rational choices and understand the nature and consequences of their actions. There must be sufficient connection between the impairment or disorder and the offending behaviour. The sentencer may consider expert evidence, which also includes expert assessment of those with neurodevelopmental disorders. Again, this is an area with little or no evidence on the impact of expert evidence of sentencing outcomes.

Fitness to plead is considered in Chapters 3, 8, 18 and 19 in those with neurodevelopmental conditions. The legal defence of 'insanity' relies on principles created by judges in case law, following the trial of Daniel M'Naghten in 1843 [24], where the law was stated as follows:

> the jurors ought to be told that in all cases that every man is presumed to be sane, and to possess a sufficient degree of reason to be responsible for his crimes, until the contrary is proved to their satisfaction; and that to establish a defence on the ground of insanity, it must be clearly proved that, at the time of the committing of the act, the party accused was labouring under such a defect of reason, from disease of the mind, as not to know the nature and quality of the act he was doing, or, if he did know it, that he did not know he was doing what was wrong.

For an insanity defence to be available, the criteria described above must be met. In a case where an accused person presents with a neurodevelopmental disorder and the possibility of an insanity defence has been raised, experts will be sought to provide evidence to the court [25]. In England and Wales, diminished responsibility is a partial defence to murder, initially set out in the Homicide Act 1957 and later amended by the Coroners and Justice Act 2009 [26]. This defence may be available to defendants with a neurodevelopmental condition but there is little reported in the literature [27]. Culpability is the degree to which a person can be held morally or legally responsible for the conduct and has been linked to the person's mental state at the time of the offence [28, 29]. Hallett [28] argues that psychiatrists should resist explicably commenting on culpability because, even if a mental disorder was considered in the context of culpability, it is an issue that is determined by the court. On the issue of insanity [28], Hallett recommends that psychiatrists are allowed to comment on the effect of a person's thought processes, which may affect their appreciation of wrongfulness, but the ultimate issue should be left to a jury. He [28] challenges McChesney and Doucet [30], who consider conditions such as ASD, ADHD and ID to impact on moral concerns. Hallett argues that to separate a lack of moral concern due to a neurodevelopmental disorder may be difficult to do from the defendant's own character. However, O'Sullivan [27] and Allely [31] argue that autistic defendants may have specific deficits that impact on their capacity to appreciate the potential of harm to

https://doi.org/10.1017/9781108955522.001 Published online by Cambridge University Press

others and that a non-guilty by reason of insanity plea can be considered in cases of violent behaviour among autistic individuals.

The evolving approach to policy and guidance for those with neurodevelopmental disorders in contact with the criminal justice system is occurring alongside advances in the understanding of genetic and biological basis of neurodevelopmental disorders. The purpose of the book is to bring together this latest evidence and understanding of neurodevelopmental disorders, describing the needs of offenders across the range of intellectual functioning. These include those with ASD, ADHD and other relevant developmental disorders, requiring assessment and treatment by professionals working across the criminal justice system and within forensic services.

Overview of the Book

The book is divided into three sections. The first section, which includes this chapter, provides an overview with an introduction to individual neurodevelopmental disorders and covers aetiology, prevalence, comorbid mental disorder and relevant policy to date.

The second section of the book focuses on the clinical aspects of the range of neurodevelopmental disorders including screening, assessment, diagnosis, risk assessments and therapeutic approaches.

The final section examines the pathways through the criminal justice system from police to court to disposal including probation services and addresses the specific aspect of fitness to plead or stand trial for those with neurodevelopmental disorders. This section also describes current relevant legislation within the UK as well as forensic services and pathways for those with neurodevelopmental disorders from a national and an international perspective.

Topics Covered in Section 1

This first chapter offers a summary of the book and serves to introduce the remaining chapters in Section 1 and the following sections.

Chapter 2 provides an overview and definition of neurodevelopmental disorders. The chapter provides a summary of the aetiology of neurodevelopmental disorders, particularly those conditions that present within forensic settings. This includes not only genetic factors but also social and environmental risk factors. Neurodevelopmental disorders that are commonly identified within forensic settings include fetal alcohol spectrum disorders (FASD), ADHD and ID.

Chapter 3 provides an overview of clinical practice relating to offenders with ID. It examines the 'offending journey' of people with ID whose behaviour reaches the threshold for criminal justice system involvement. This journey ranges from being accused of a crime, interactions with the police, decisions regarding prosecution and the processes involved in court cases. The chapter also reviews key research in this area, examining characteristics and the risk factors for offending in this population, along with models of treatment and treatment outcomes.

Chapter 4 is a critical overview of offenders with ADHD but acknowledges that undiagnosed or not correctly treated ADHD is associated with a range of adverse outcomes. Evidence from metanalyses confirms an increased prevalence of ADHD in the young and adult offender population, and the relationship between ADHD and criminal offending, particularly in terms of comorbidity and long-term consequences, is discussed. The chapter

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provides a framework for understanding the association between ADHD and criminal offending, such as the impact of impulsivity, lack of planning involved and the subsequent difficulties for a person with ADHD going through the criminal justice system.

Chapter 5 is an overview of offenders with ASD, which illustrates this diverse group. The chapter discusses the challenge of determining the prevalence of autistic individuals entering the criminal justice system and, in particular, the gaps in our knowledge around the presence of autistic women within the forensic system. The chapter also highlights the influence of the media in how autistic people are portrayed following significant criminal offences.

Chapter 6 describes the different types of offences associated with individuals with ASD and explores the different types of offences, including cybercrimes, violent and sexual offending. The chapter particularly looks at extreme examples of violent crime, such as mass shootings, and aims to increase our understanding of how individuals may exert warning signs in the weeks, months or years leading up to the attack. A detailed examination of different push and pull factors that may lead to autistic people engaging in terrorist behaviours is also discussed in the context of the core symptoms of ASD, such as a circumscribed interest, impaired social imagination or obsessionality.

Chapter 7 is an overview of young people with neurodevelopmental impairments. The authors provide key findings from relevant research, particularly when young people with neurodevelopmental impairments are exposed to social and environmental risks for offending. The chapter highlights a range of studies across international settings revealing a high instance of neurodevelopment impairments amongst young offenders in comparison to young people in the general population. Social environmental factors such as educational disengagement, peer-group influencers and parenting practices are considered as factors to increase the risk for offending behaviours. The authors emphasise the importance of early intervention through education and family support, early identification and a much more responsive criminal justice system to reduce the risk of ongoing offending behaviours.

Chapter 8 provides an overview of offenders with FASD. The first part of the chapter focuses on the process for assessment and diagnosis. The second part of the chapter looks at the prevalence of FASD in offenders, acknowledging that, because of the complexity of the diagnosis, FASD may not be commonly diagnosed, so making it difficult to ascertain good prevalence studies. The third part of the chapter focuses on the relationship between FASD and young offenders within the criminal justice system. The final part of the chapter looks at the ability of young offenders, particularly those with FASD, to defend themselves within the legal system and understand the processes, including the interviewing process. The authors provide recommendations on how to question individuals with neurodevelopmental disorders during legal proceedings, as professionals may overestimate a defendant's abilities and underestimate their needs, which may lead to poorly informed and detrimental decisions such as harsher sentencing.

Chapter 9 introduces the concept of subthreshold neurodevelopmental disorder, describing individuals who do not meet diagnostic criteria thresholds for any neurodevelopmental disorder. Recent research identifies that there is a group with neurodevelopmental difficulties in contact with the correctional system that may require specific support and early identification. This group has been found to have high levels of mental health needs and increased vulnerability for self-harm and suicide-related behaviours when compared to neurotypical offenders. The chapter also summarises currently available screening tools and the need for further studies that require a coordinated approach to understand

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this group with subthreshold difficulties, including an agreed common definition using a dimensional approach.

Chapter 10, examines comorbidity between mental disorders and neurodevelopmental conditions. Comorbidity between neurodevelopmental disorders is common but also comorbidity with other mental disorders. Although it is acknowledged that neurodevelopmental disorders commonly occur with psychiatric disorders, this seems to be a particular risk for those who are in contact with the criminal justice system. Those with autistic conditions may often present with conduct disorders, depression and psychotic disorders; whereas offenders with ADHD are more likely to present with mood disorders, substance use disorders, anxiety and personality disorders with the overlap between substance use and personality disorders being significant predictors of criminality. The importance of identifying the presence of comorbid psychiatric disorders, particularly substance use disorder, is highlighted.

Topics Covered in Section 2

Chapter 11 is on the assessment and treatment of ADHD in forensic settings. Evidence to date has found a high prevalence of ADHD in prisons and forensic populations but there is still a challenge in identifying this group. The chapter provides examples of potential screening tools used in forensic settings such as the Adult ADHD Self-Report Scale (ASRS) and the Barkley Adult ADHD rating scale. There is also guidance on diagnostic interview tools with an emphasis on using DSM-5 criteria and the need to consider the assessment of comorbid conditions such as severe mental illnesses or personality disorders. The authors provide an overview on treatment approaches including psychoeducation, use of non-pharmacological treatment as well as pharmacological treatment with both stimulants and non-stimulant medications. The treatment of comorbid mental disorders is equally important to achieve good outcomes for those offenders presenting with ADHD and to ensure management continues after release from prison or forensic settings.

Chapter 12 outlines assessment and therapeutic approaches within forensic settings for autistic adults. The authors highlight that many offenders entering forensic settings may have an established diagnosis, but many do not, and it is important to undertake a diagnostic assessment. The chapter covers the role of psychopathy in the context of offenders with ASD and while similarities have been drawn with features of psychopathy in those who offend, the evidence remains limited. The chapter also emphasises the importance of assessing for co-occurring mental illness as well as alcohol and illicit substance misuse. In terms of therapeutic approaches, the chapter covers psychological approaches, including adaptive cognitive behaviour therapy, leading to behavioural changes that increase the individual's ability to function rather than necessarily resulting in cognitive changes. The use of medication for comorbid symptoms such as irritability and aggression among those with ASD and the importance of treating co-occurring conditions such as ADHD or mood disorders is summarised. The importance of staff training and awareness across criminal justice systems, encouraging staff to work to the individual's strengths in an autistic-friendly environment, is highlighted. The issue of women offenders with ASD is recognised as an under-researched group, who may have different therapeutic needs – for example, requiring an approach that is more trauma focused.

Chapter 13 describes the assessment and therapeutic approaches to people with ID within forensic settings. The chapter emphasises that it is difficult to identify offenders with

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ID within the criminal justice system and that the prevalence figures vary across the world depending on the type of approach or screening tool used. The importance of understanding that an assessment of a person with ID is not only a measure of cognitive function but must include adaptive functioning and other factors in the person's development, such as access to education or childhood trauma experiences. The chapter gives an overview of available screening tools including the Hayes Ability Screening Index and the Learning Disability Screening Questionnaire, describing the benefits and difficulties with each of the screening tools available. The importance of taking a rehabilitation approach to offenders with ID in developing their life and social skills alongside specific offender-related interventions, such as violence reduction programmes and programmes for sexual offenders, is emphasised. Interventions need to be adapted to the person's level of cognitive impairment and set around the individual's needs as well as their risk factors for offending behaviours. The authors also highlight the need for staff to also be aware of the environment and how they respond to the person in a therapeutic or criminal justice setting

Chapter 14 provides an approach to risk assessments in people with neurodevelopmental disorders. The chapter highlights that structured professional judgement risk-assessment tools are used essentially to develop a risk formulation, which needs to take into account the function of risk behaviours within the context of each neurodevelopmental condition. An overview of the evidence based on specific tools such as the HCR-20 is provided. Good practical advice is given on how to use the tool in the context of a person with ID: it is not the scoring of each item that helps the clinician; the strength of the tools lies in the rigorous gathering of evidence to inform a formulated-based approach to plan future risk management. There is less evidence around risk-assessment approaches in those with ASD and the chapter provides a detailed summary of the FARAS (a framework to aid risk assessment with offenders on the autistic spectrum) manual, which gives guidance to support risk assessment in offenders with ASD. The guidelines are organised through seven sections, each addressing a different facet of ASD including social imagination, obsessionality-type behaviours, social interaction and communication difficulties, cognitive style and sensory processing. In addition, details of a parallel tool for use in those diagnosed with ADHD, namely the Framework for the Assessment of Risk and Protection in Offenders with Attention Deficit Hyperactivity Disorder (FARAH), is described. As with the FARAS, this is not a risk-assessment tool but takes the form of comprehensive clinical guidelines for risk assessors to use alongside mainstream risk assessments such as the HCR-20 V3 as an aid to formulation The chapter provides two case studies using the HCR-20 in the context of a young person with ASD and a person with ID.

Chapter 15 covers the assessment and treatment of young offenders. Young offenders are a vulnerable group and, while in contact with the youth offending system, there is an opportunity to address unmet needs around health including neurodevelopmental impairments, education and the impact of adverse childhood events. The authors highlight the need to use recognised assessment tools such as AssetPlus, which provides an understanding of the strengths and needs of the young person, including their wider social circumstances, their educational needs and other health needs including a neurodisability assessment. AssetPlus is a dynamic tool, so it can be updated to monitor changes over time. It is also designed to work with the Comprehensive Health Assessment Tool and is available for use both in community and in custodial settings. There is a range of different models of healthcare delivery from the lone health practitioner model to an outreach consultative model for young offenders. An example is provided in which clinicians are

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based between a community youth offending service and a generic child and adolescent mental health service. The importance of supporting young offenders through the transition into adult services is highlighted by a case example. The youth justice system can be a final chance to engage a young person within the system and address any unmet needs such as substance abuse.

Topics Covered in Section 3

Chapter 16 describes the pathways through the criminal justice and correctional systems for individuals with neurodevelopmental disorders. These steps through the pathways may include screening at a police station, assessment by liaison and diversion services or interventions within a correctional setting. The pathway is not linear and there are many routes into and out of the pathway. A number of case studies are given on how, at critical points, the identification of a person with a neurodevelopmental disorder may lead to an intervention such as support to effectively participate in the court process. There remains a limited evidence base on what works, with the possible exception that screening is beneficial in identifying those with neurodevelopmental disorders early on in the pathway.

Chapter 17 describes the Mental Health Act and other relevant legislation in the UK in relation to people with neurodevelopmental disorders. The four countries of the UK are covered with a summary of relevant sections, including those within Part III of the Mental Health Act of England and Wales that relates to those who come before the courts in terms of their offending behaviours. The chapter also touches on the subjects of the Mental Capacity Act, including Deprivation of Liberty Safeguards and the future introduction of liberty protection safeguards. Relevant to the Scottish Mental Health Act, it discusses the recent review of legislation in Scotland and the debate regarding the inclusion of ID and ASD as a mental disorder.

Chapter 18 covers fitness to plead and the right to a fair trial. The authors consider the international approach to fitness to plead and suggest that, at times, it may not safeguard vulnerable defendants. Concepts such as decision-making capacity and effective participation are being recommended in England and Wales as a way to modernise fitness to plead. Comparisons are made on the approaches to the law and fitness to plead in other adversarial jurisdictions, such as the USA, Canada and Australia. The evidence supports the need to incorporate formal cognitive assessments when assessing fitness to stand trial or fitness to plead, to ensure that the specific cognitive functions of the individual are identified.

Chapter 19 also covers fitness to plead, with a specific focus on people with ID in relation to mental health and capacity legislation for England and Wales, including use of sections 35 and 36 of the Mental Health Act.

Chapter 20 offers an overview of community and inpatient hospital services in England with neurodevelopmental disorders. The policy in England has been driven by the uncovering of institutional abuse over the past decade, with the aim to support and treat most people in the community. The tier approach to delivery of services is outlined with Tier 4 including six categories of inpatient services. The development of Tier 3 community-based forensic services for people with neurodevelopmental disorders remains patchy and not universally available across the UK. The chapter outlines standards that services should adhere to when admitting a patient into forensic or secure services.

Chapter 21 is an overview of offenders with neurodevelopmental disorders covering four Nordic countries. The chapter provides an excellent overview of the practice, research and

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legislation in the Nordic countries of Denmark, Sweden, Norway and Finland. Each country has a slightly different defined threshold for considering a person criminally irresponsible; for example, the function of a person is set at a threshold of intelligence quotient (IQ) less than 70 in Denmark and Finland and at an IQ less than 55 in Norway. The treatment facilities and policy also vary between countries, which are highlighted in this chapter.

Chapter 22 provides an outline of the intersection of legal and forensic pathways for people with neurodevelopmental disorders in Ontario, Canada. In this chapter, there are two case studies that illustrate how legal and health services work for a person with developmental disabilities through the criminal justice system. The interface is with a number of services and programmes not only from health and the criminal justice system but the social care sector, including appropriate support within the community. The chapter emphasises that a person with a neurodevelopmental disorder, even though they might be similar to another offender, can have vastly different experiences and outcomes depending on a number of variables as they go through the criminal justice system, such as the discretion of multiple decision makers, the resources available and extra-legal factors such as support networks. The chapter advocates for therapeutic justice for this group of offenders and that appropriate rehabilitation be available for the individual to be safely moved through into the community.

Chapter 23 describes the Australasian perspective on the forensic needs of individuals with neurodevelopmental disorders. This chapter covers a vast geographical area of Australia, Aotearoa New Zealand, Papua New Guinea and the neighbouring islands of the Pacific. The countries of this region have long histories that pre-dated the British Colonisation in the late eighteenth century but the latter part of the history for Australia and Aotearoa New Zealand has been shaped by this influence on the current legislative and healthcare systems. The chapter provides details of healthcare in Australia and Aotearoa New Zealand, with particular emphasis on the legal frameworks and the development of mental healthcare systems for both countries. Understanding the cultural needs of the Indigenous people of Australia who are the First Nations Australians and the Māori people of Aotearoa New Zealand is very important in the context of the person's experiences of forensic services. The fundamental challenge facing Australia and Aotearoa New Zealand is the lack of capacity in the workforce in both mental health service and forensic services to deliver to this complex group of offenders with neurodevelopmental disorders. The chapter provides details on the legislation for the different states of Australia. One interesting aspect of legislation in relation to the recent debate in England, Wales and Scotland is that, in Aotearoa New Zealand, ID was removed from the Mental Health Act as a mental disorder. Specific legislation for people with ID who came to the courts, namely the Intellectual Disability Compulsory Care & Rehabilitation Act of 2003, was subsequently required.

Finally, Chapter 24 offers the editors an opportunity to reflect on the book and offer concluding comments.

Conclusion

This guide, primarily aimed at working clinicians and researchers is the first comprehensive text to examine offenders with neurodevelopmental disorders, their assessment, treatment, policy, pathways, legislation, clinical and offending characteristics, offering an international perspective. Previously, books have tended to focus on single conditions. By focusing across neurodevelopmental disorders, this work reveals commonly shared issues such as cognitive

https://doi.org/10.1017/9781108955522.001 Published online by Cambridge University Press

and social impairment can present differently between conditions and highlights the need for adequate screening and diagnosis.

References

1. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders, 5th edition: DSM-5*. American Psychiatric Association, 2013.
2. Du Rietz E, Pettersson E, Brikell I, Ghirardi L, Chen Q, Hartman C, et al. Overlap between attention-deficit hyperactivity disorder and neurodevelopmental, externalising and internalising disorders: separating unique from general psychopathology effects. *British Journal of Psychiatry* 2021; 218(1): 35–42.
3. Murray J, Farrington DP. Risk factors for conduct disorder and delinquency: key findings from longitudinal studies. *Canadian Journal of Psychiatry* 2010; 55(10): 633–42.
4. Lim L, Chantiluke K, Cubillo A, Smith A, Simmons A, Mehta M, et al. Disorder-specific grey matter deficits in attention deficit hyperactivity disorder relative to autism spectrum disorder. *Psychological Medicine* 2015; 45(5): 965–76.
5. Horder J, Petrinovic MM, Mendez MA, Bruns A, Takumi T, Spooren W, et al. Glutamate and GABA in autism spectrum disorder: a translational magnetic resonance spectroscopy study in man and rodent models. *Translational Psychiatry* 2018; 8(1) :1–11.
6. Kooij JJS, Bijlenga D, Salerno L, Jaeschke R, Bitter I, Balazs J, et al. Updated European Consensus Statement on diagnosis and treatment of adult ADHD. *European Psychiatry* 2019 ;56: 14–34.
7. Shi Y, Wang M, Mi D, Lu T, Wang B, Dong H, et al. Mouse and human share conserved transcriptional programs for interneuron development. *Science* 2021; 374 (6573): eabj6641.
8. Marotta R, Risoleo MC, Messina G et al., (2020). The Neurochemistry of Autism. *Brain Sciences,* 10, 163.
9. Parenti I, Rabaneda LG, Schoen H, Novarino G. Neurodevelopmental disorders: from genetics to functional pathways. *Trends in Neurosciences* 2020; 43 (8): 608–21.
10. Lord C, Charman T, Havdahl A, Carbone P, Anagnostou E, Boyd B, et al. The *Lancet* Commission on the future of care and clinical research in autism. *Lancet* 2022; 399(10321): 271–334.
11. Autistica. A review of the research funding landscape in the United Kingdom. 2018. Available at: https://issuu.com/fitcreative.ltd.uk/docs/autistica-autism_research_funding_l/1.
12. Langdon PE, Alexander R, O'Hara J. Highlights of this issue. *British Journal of Psychiatry* 2021; 218(1): A3.
13. Alexander RT, Langdon PE, O'Hara J, Howell A, Lane T, Tharian R, et al. Psychiatry and neurodevelopmental disorders: experts by experience, clinical care and research. *British Journal of Psychiatry* 2021; 218(1): 1–3.
14. O'Grady SM, Hinshaw SP. Long-term outcomes of females with attention-deficit hyperactivity disorder: increased risk for self-harm. *British Journal of Psychiatry* 2021; 218(1): 4–6.
15. Murphy D, Glaser K, Hayward H, Eklund H, Cadman T, Findon J, et al. Crossing the divide: a longitudinal study of effective treatments for people with autism and attention deficit hyperactivity disorder across the lifespan. *Programme Grants Appl Res* 2018; 6(2).
16. Ryland H, Davies L, Kenny-Herbert J, Kingham M & Deshpande M. (2021). Advancing research in Forensic Mental Health Services in England. *Medicine, Science & the Law,* 1–5.
17. McCarthy J, Chaplin E, Hayes S, Søndenaa E, Chester V, Morrissey C, et al. Defendants with intellectual disability and autism spectrum conditions: the perspective of clinicians working across three jurisdictions.

https://doi.org/10.1017/9781108955522.001 Published online by Cambridge University Press

Psychiatry, Psychology and Law 2021; 29 (5): 698–717.

18. Brooker C, Coid J. Mental health services are failing the criminal justice system. *BMJ* 2022: 376.
19. Criminal Justice Inspectorates. Neurodiversity in the criminal justice system. Available at: www.justiceinspectorates.gov.uk.
20. HM Government. National strategy for autistic children, young people and adults: 2021 to 2026, policy paper. Available at: www.gov.uk/government/publications/national-strategy-for-autistic-children-young-people-and-adults-2021-to-2026.
21. NHS England. *Meeting the healthcare needs of adults with a learning disability and autistic adults in prison*. Available at: www.england.nhs.uk/publication/meeting-the-healthcare-needs-of-adults-with-a-learning-disability-and-autistic-adults-in-prison/.
22. Sentencing Council. Sentencing offenders with mental disorders, developmental disorders, or neurological impairments. 2020. Available at: www.sentencingcouncil.org.uk/overarching-guides/magistrates-court/item/sentencing-offenders-with-mental-disorders-developmental-disorders-or-neurological-impairments/.
23. Taylor PJ, Eastman N, Latham R, Holloway J. Sentencing offenders with mental disorders, developmental disorders or neurological impairments: what does the new Sentencing Council Guideline mean for psychiatrists? *British Journal of Psychiatry* 2021; 218(6): 299–301.
24. *R* v. *M'Naghten* [1843] 8 ER 718; [1843] 10 Cl & F 200.
25. Baroff GS, Gunn M, Hayes S. Legal issues. In Lindsay WR, Taylor JL, Sturmey P, eds., *Offenders with Developmental Disabilities*. Wiley, 2004: 37–66.
26. Hallett N. Psychiatric evidence in diminished responsibility. *Journal of Criminal Law* 2018; 82(6): 442–56.
27. O'Sullivan OP. Autism spectrum disorder and criminal responsibility: historical perspectives, clinical challenges and broader considerations within the criminal justice system. *Irish Journal of Psychological Medicine* 2017; 35(4): 333–9.
28. Hallett N. To what extent should expert psychiatric witnesses comment on criminal culpability? *Medicine, Science and the Law* 2020; 60(1): 67–74.
29. Moore MS. Prima facie moral culpability. *Boston University Law Review* 1996; 76: 319.
30. McChesney D, Doucet M. Culpable ignorance and mental disorders. *Journal of Ethics and Social Philosophy* 2018; 14: 227.
31. Allely CS. Autism spectrum disorders in the criminal justice system: police interviewing, the courtroom and the prison environment. In *Recent Advances in Autism*. SM Group Open Access eBooks, 2016: 1–13.

https://doi.org/10.1017/9781108955522.001 Published online by Cambridge University Press