## Neurodevelopmental Disorders: An Overview

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Neurodevelopmental disorders encompass a diverse range of conditions that arise during the developmental period, typically before the age of 18. ese disorders impact various aspects of functioning, including cognitive abilities, social skills, and behavior. Common examples include autism spectrum disorder (ASD), attentionde cit/hyperactivity disorder (ADHD), and intellectual disability (ID). Understanding these disorders is essential for early diagnosis, e ective management, and improving the quality of life for a ected individuals. is article provides an overview of neurodevelopmental disorders, including their classi cation, diagnostic criteria, underlying mechanisms, and management strategies [1].

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A. . - . . / . . . . . . . . . . . . (ADHD)

D : Attention-de cit/hyperactivity disorder (ADHD) is characterized by persistent patterns of inattention, hyperactivity, and impulsivity that interfere with functioning or development. Symptoms must be present for at least six months and in multiple settings (e.g., home, school). Ŭ

**D** ..... : Intellectual disability (ID) is characterized by signi cant limitations in intellectual functioning and adaptive behavior, which a ect daily living skills. ID manifests during the developmental period and can vary from mild to profound.

**D** : e DSM-5 criteria for ID include an IQ score below 70 and di culties in adaptive functioning, such as communication, self-care, and social skills. e condition must be present before the age of 18 and impact daily life.

P : : ID a ects approximately 1-3% of the global population. Risk factors include genetic conditions (e.g., Down syndrome), prenatal exposure to toxins, and perinatal complications. Early intervention and supportive services are essential for improving developmental outcomes [4].

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E : Prenatal exposure to environmental toxins, maternal infections, and complications during pregnancy can increase the risk of neurodevelopmental disorders. Additionally, early life experiences, including social and educational environments, play a role in shaping developmental trajectories.

**N**: : Neurodevelopmental disorders o en involve abnormalities in brain structure and function. For example, individuals with ASD may have di erences in brain connectivity and synaptic function, while those with ADHD may exhibit reduced activity in brain regions associated with attention and impulse control [5].

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ing or I (IEP.): Individualized and in Education Programs (IEPs) are tailored plans designed to meet the speci c educational needs of students with neurodevelopmental Physiother 14: 727.

D :: e DSM-5 criteria for ADHD inclu**@opyright:** © 2024 Martina R. This is an open-access article distributed under th main domains: inattention and hyperactivity-impulsivity. Inattentions of the Creative Commons Attribution License, which permits unrestricte involves di culty sustaining attention, following through on **useks** istribution, and reproduction in any medium, provided the original author an and organizing activities. Hyperactivity-impulsivity includes examine are credited. dgeting, di culty remaining seated, and impulsive decision-making

[3].

P. . . . . : ADHD a ects approximately 5-10% of children worldwide. Risk factors include genetic predisposition, prenatal exposure to tobacco or alcohol, and low birth weight. Early diagnosis and treatment can help manage symptoms and improve functioning.

disorders. IEPs outline goals, accommodations, and modi cations to support learning and development.

**A**...: Assistive technology, including communication devices and educational so ware, can support learning and communication for individuals with neurodevelopmental disorders. Tools such as speech-generating devices and organizational apps can improve access to education and daily functioning.