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SCREEN TIME AND AUTISM-LIKE SYMTOMS IN CHILDREN: A REVIEW OF THE DIGITAL AUTISM HYPOTHESIS

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Abstract. The widespread use of modern digital technologies has significantly influenced children's development. This article examines the concept of "digital autism" and its impact on children's psychological and cognitive development. Based on a review of scientific literature, the effects of screen time on speech development, attention span, and social interactions are analyzed. Additionally, recommendations for preventing digital autism are provided. The research findings indicate that excessive use of technology may lead to a decline in children's social communication skills, emotional detachment, and disruptions in developmental processes. Therefore, this article offers practical recommendations for parents, educators, and medical professionals.

Keywords: Autism Spectrum Disorder, digital environment, treatment, neurological, diagnosis, communication, WHO.

Introduction. It is common to hear parents say, "My child knows everything and performs tasks but does not communicate, does not respond when called, does not play with other children, dislikes noise, has become irritable, repeats certain movements, and speaks very little." Such complaints indicate a lack of awareness among parents regarding child development characteristics and how certain conditions manifest. These concerns may suggest autism, particularly the increasingly prevalent form known as digital autism. In recent years, the rapid advancement of digital technologies and their deep integration into daily life have had a significant impact on children's development. From an early age, children are exposed to the digital environment through mobile phones, tablets, computers, and televisions. However, excessive use of these technologies has been linked to various cognitive and social issues. Research shows that increased screen time may hinder speech development, reduce attention span, and negatively affect social interactions. The term "digital autism" has recently gained attention in discussions among psychologists and neurologists. This concept describes autism-like symptoms that appear in children who spend excessive time in front of screens. Although digital autism is not yet an officially recognized clinical diagnosis, scientific communities are actively debating the potential link between technological exposure and developmental changes in children. Some studies suggest that children who become dependent on mobile devices from

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an early age struggle with real-world communication, display lower emotional engagement with parents and peers, and experience difficulties in language acquisition.

Establishing communication with children diagnosed with Autism Spectrum Disorder (ASD) is crucial. Axrorova S.A. and Axrorov A.A. (2023) discuss communication strategies for children with autism in their research. They recommend sensory-based approaches that engage vision, hearing, touch, smell, and taste to facilitate interaction.

Autism Spectrum Disorder (ASD) is a neurological condition that affects an individual's social interactions, communication, and behavior. The severity of ASD is typically categorized based on the challenges it presents in daily life. There are three levels of ASD:

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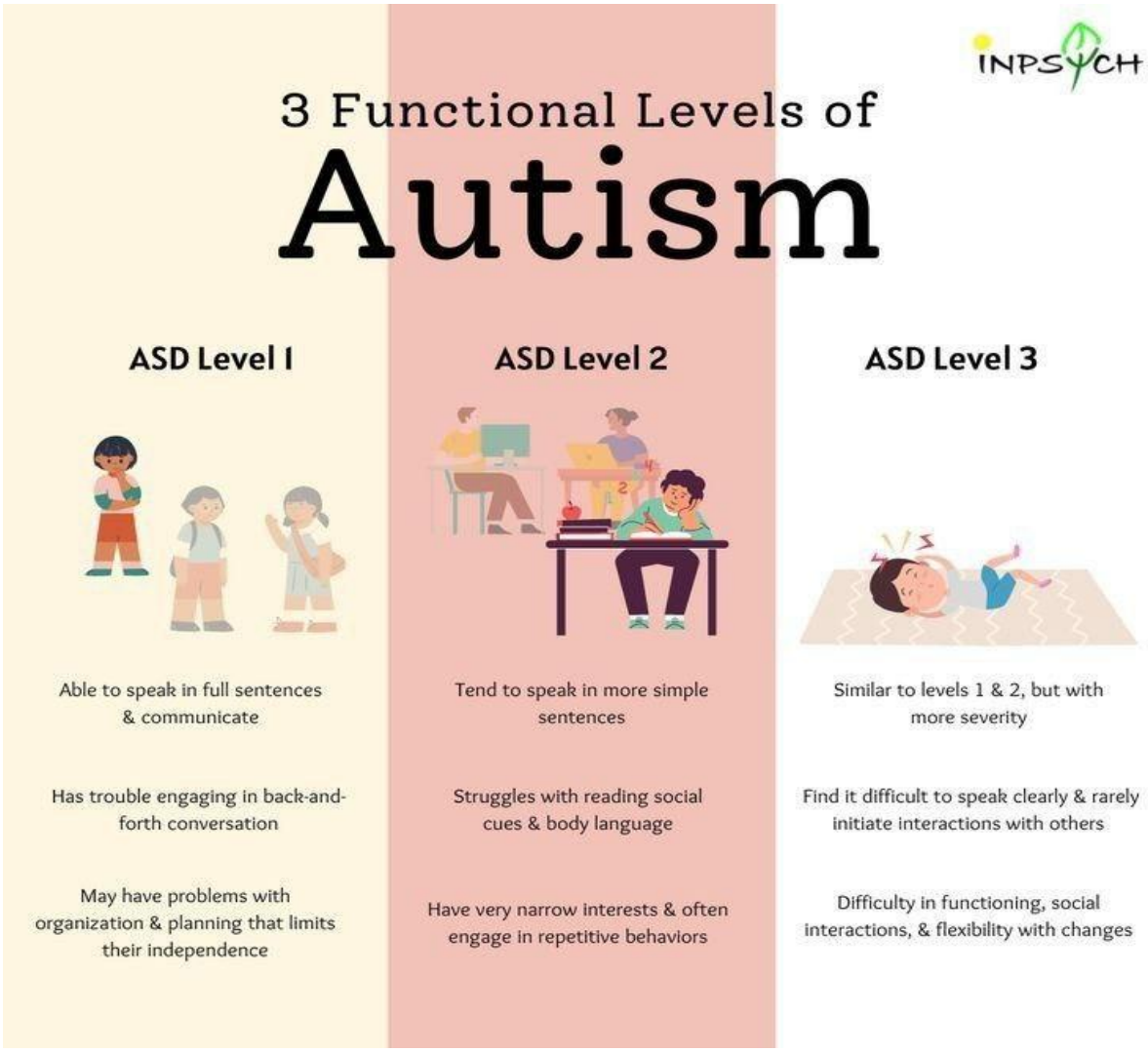

Autism treatment approaches vary widely and are individualized based on the patient's needs. The main treatment directions include:

1. Therapeutic Interventions: Social and Communication Therapy: Helps individuals develop social interaction skills. Behavioral Therapy (ABA – Applied Behavior Analysis): Focuses on reducing problematic behaviors and promoting positive behaviors. Speech and Communication Therapy: Aims to improve speech and language development.

2. Medications: While there is no specific medication for autism, certain drugs can be prescribed to alleviate symptoms such as anxiety or depression.

3. Education and Support: Special education programs and support services help children develop self-management skills. Treatment often requires active participation from parents, teachers, and social support networks. Early diagnosis and intervention play a crucial role in improving a child's development.

According to the World Health Organization (WHO), 3.4 billion people, or 43.1% of the global population, suffer from neurological disorders. Autism is among these disorders and is

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one of the most prevalent neurodevelopmental conditions in children. In 2019, data showed that over 10 million children worldwide had been diagnosed with autism, and this number continues to increase by 11% annually. In the 1990s, 1 in 5,000 children was diagnosed with autism, whereas today, this figure has risen to 1 in 50 children. In Uzbekistan, more than 200 children have been diagnosed with autism, but the number of undiagnosed or untreated cases is likely much higher. These statistics highlight the global rise of autism and emphasize the importance of early diagnosis, treatment, and public awareness.

Although "digital autism" is not yet recognized as a formal medical diagnosis, excessive use of digital technology can negatively impact children's development. Therefore, monitoring screen time and encouraging creative and interactive activities involving technology is crucial for parents and educators. Future scientific research is needed to better understand the global effects of digital technologies on child development.

"Digital autism" is **not recognized as an official clinical diagnosis** in the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TR)* or the *International Classification of Diseases (ICD-11)*. The term is used informally to describe **autism-like symptoms associated with excessive early screen exposure**, but it is not classified as Autism Spectrum Disorder (ASD).

Global Prevalence of Autism Spectrum Disorder (ASD)

According to the World Health Organization (WHO), **approximately 1 in 100 children worldwide** is diagnosed with Autism Spectrum Disorder (ASD).

The Centers for Disease Control and Prevention (CDC, 2023) reports that in the United States, **1 in 36 children (8-year-olds)** has been identified with ASD.

Global prevalence estimates have increased over the past two decades, partly due to improved awareness and diagnostic criteria.

Global Screen Time Statistics in Children

A large international review published in *JAMA Pediatrics* found that children aged 2–5 years spend an average of **2–3 hours per day** on screens.

Children aged 8–12 years spend approximately **4–6 hours daily**, while adolescents may exceed **7–9 hours per day** (excluding schoolwork).

The American Academy of Pediatrics (AAP) recommends:

No screen time for children under 18–24 months (except video chatting).

Less than 1 hour per day for children aged 2–5 years.

Research Linking Early Screen Exposure and Autism-Like Symptoms

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Although causation has not been proven, several studies suggest an association:

A 2020 cohort study in *JAMA Pediatrics* (Madigan et al.) found that **higher screen time at age 2 was associated with poorer performance on developmental screening tests at age 3**.

A 2022 Japanese cohort study (Takahashi et al., *JAMA Pediatrics*) involving over 84,000 mother-child pairs found that **boys exposed to longer screen time at age 1 had a significantly higher likelihood of ASD diagnosis by age 3**.

A 2023 systematic review and meta-analysis (over 560,000 participants) reported a **statistically significant association between increased screen exposure and autism-like symptoms**, though researchers emphasized that this does not confirm causality.

Children with ASD have been reported to spend **more time on screens (average 3.6 hours/day)** compared to typically developing peers.

Neurological and Developmental Context

The World Health Organization estimates that **over 3 billion people globally** live with neurological conditions. ASD is one of the most common neurodevelopmental disorders in childhood.

Early excessive digital exposure has been associated with:

Delayed language development

Reduced eye contact

Decreased social engagement

Attention difficulties

However, researchers stress that **ASD has strong genetic and neurobiological foundations**, and screen exposure alone does not cause autism.

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