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How to work with autistic children in the field of sport

A curriculum for volunteers

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Authors: Maniu Dragos Adrian/Maniu Emese Agnes/ Daniela Tamas

Editors: Maniu Dragos Adrian/Maniu Emese Agnes/ Daniela Tamas

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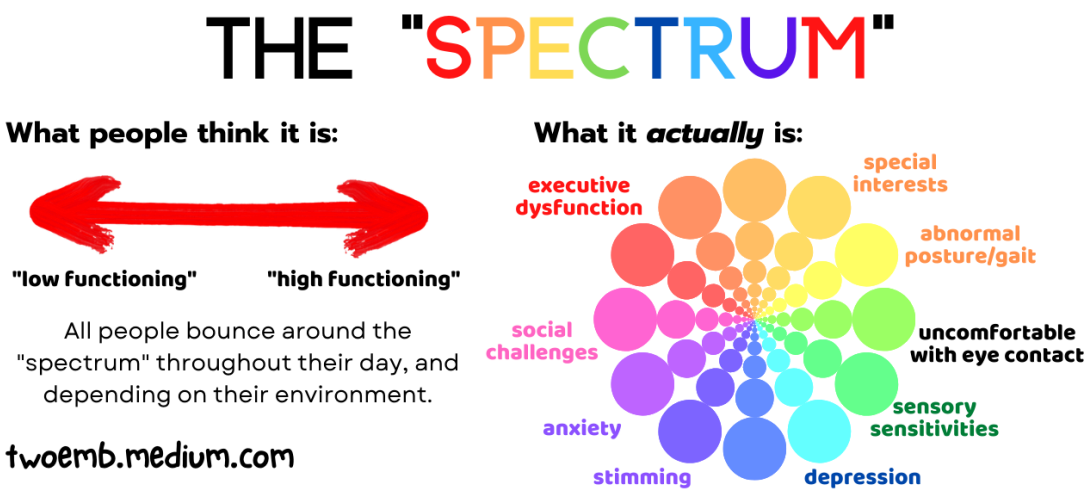

What is autism?

Autism, also known as Autism Spectrum Disorder (ASD), is a neurodevelopmental disorder characterized by persistent challenges in social interaction, communication, and restricted or repetitive behaviors. Individuals with autism may display a wide range of symptoms, abilities, and levels of impairment, which is why it's referred to as a spectrum disorder.

Autism is a neurological disease that alters a person's perception and interaction with their surroundings. It is neither a disease or something that can be treated, but rather a distinct way of being. Individuals with autism frequently exhibit problems in speech, social interaction, and sensory processing. Some people excel in one area, such as problem solving or creative thinking, while struggling in others.

Autism is a spectrum disorder, which means that the autistic community possesses a diverse set of abilities and features. Understanding people with

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autism requires learning to recognize and appreciate their various experiences and viewpoints, as well as encouraging understanding, acceptance, and support for their unique strengths and challenges.

According to the**American Psychiatric Association**(APA) Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), autism spectrum disorder is characterized by deficits in social communication and social interaction across multiple contexts, as well as restricted, repetitive patterns of behavior, interests, or activities. These symptoms must be present in the early developmental period and cause clinically significant impairment in social, occupational, or other important areas of current functioning (American Psychiatric Association, 2013).

The WHO defines autism spectrum disorder as a developmental disorder that affects communication and behavior. It encompasses a wide range of symptoms and severity levels and may cause significant impairments in social, occupational, and other areas of functioning. The WHO classifies autism as a neurodevelopmental disorder (WHO, 2018).

The CDC describes autism spectrum disorder as a developmental disability that can cause significant social, communication, and behavioral challenges. It emphasizes that early intervention services can greatly improve a child's development and ability to functionCenters for Disease Control and Prevention, 2021).

These definitions provide a comprehensive understanding of autism spectrum disorder, encompassing its core features, diagnostic criteria, and impact on individuals' lives.

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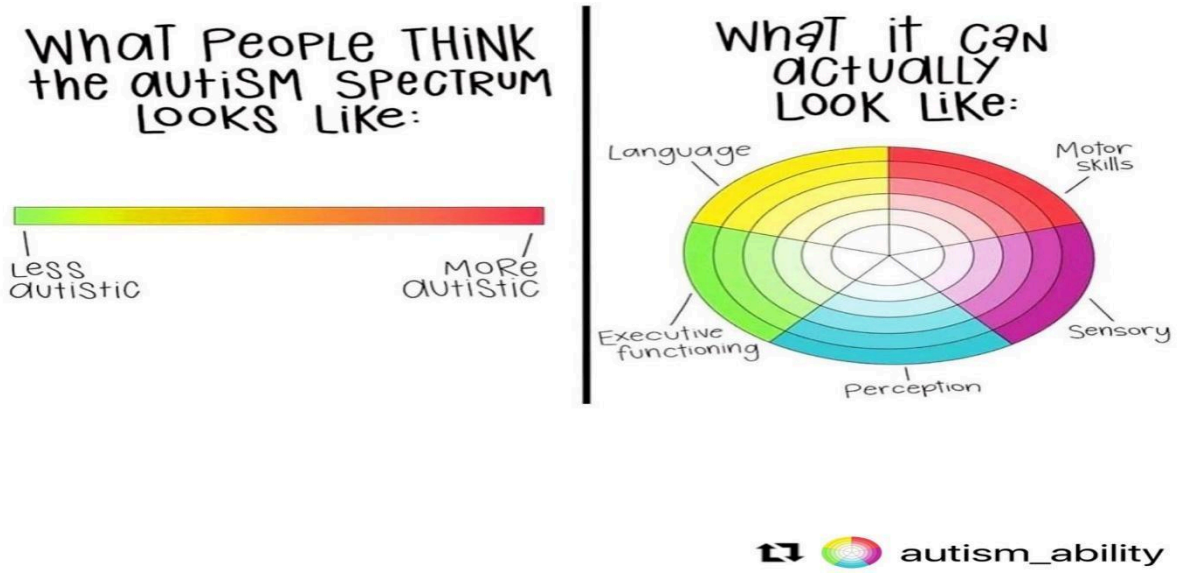

Characteristics of autism spectrum disorders

Autism Spectrum Disorder (ASD) is characterized by a range of symptoms and behaviour's that manifest differently in each individual. Here are some common characteristics.

Social Communication Challenges:

- Difficulty with verbal and nonverbal communication, such as understanding and using gestures, facial expressions, and tone of voice.Some autistic people cannot talk or have limited communication, whilst others have excellent language skills but struggle to interpret sarcasm or tone of voice. Additional challenges include: ymptoms of this condition include difficulty understanding abstract concepts, taking longer to digest information, and repeating what others say (echolalia).

- Challenges in developing and maintaining relationships, including difficulty making friends and understanding social cues.Autistic

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persons frequently struggle with'reading' other people, which is recognising or understanding their feelings and intentions, as well as expressing their own. This can make it difficult to navigate the social world.

Autistics mayappears to be insensitive , when overwhelmed by others, individuals may prefer alone, avoid seeking comfort from others, exhibit unusual behavior, and struggle to develop relationships.

- Limited interest in sharing experiences or emotions with others (American Psychiatric Association, 2013).

Restricted and Repetitive Behaviors:

- Engaging in repetitive movements or behaviors, such as hand-flapping, rocking, or spinning objects.
- Insistence on sameness and routines, becoming upset by changes in their environment or daily activities.
- Highly focused interests in specific topics or activities, often to the exclusion of others(American Psychiatric Association, 2013).

Sensory Sensitivities:

- Heightened or reduced sensitivity to sensory stimuli, such as light, sound, texture, or taste.
- Reacting strongly or becoming overwhelmed by sensory input, leading to sensory-seeking or sensory-avoidant behaviors (Liss et all, 2006).

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Intellectual and Developmental Differences:

- Varying levels of intellectual and developmental abilities, ranging from profound intellectual disability to above-average intelligence.
- Difficulty with academic learning or adaptive skills, such as self-care or problem-solving (Baio et all, 2018).

These characteristics are identified through clinical observation, standardized assessments, and interviews with caregivers, and they form the basis for diagnosing autism spectrum disorder.

Sport and physical activities for ASD

Engaging in sports and physical activities can offer significant benefits for individuals with autism spectrum disorder (ASD), addressing various aspects of their physical, emotional, and social well-being. Here are some reasons why sports activities are important for individuals with autism:

Motor Skills Development, Physical Health and Well-being:

- Participation in sports promotes physical fitness, coordination, and motor skills development.

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- Regular exercise can help manage weight, improve cardiovascular health, and enhance overall physical well-being (Pan, 2008).
- Participation in physical activities such as running, jumping, climbing, and throwing can enhance gross motor skills.
- Activities that involve fine motor skills, such as catching and throwing a ball, can also improve coordination and dexterity (Pan, 2018).

Sensory Integration:

- Physical activities provide opportunities for sensory input, helping individuals with ASD regulate their sensory systems.
- Activities like swinging, bouncing on a trampoline, or playing with sensory toys can help individuals manage sensory sensitivities and improve sensory processing (Kern et all, 2010).

Emotional Regulation:

- Physical activities provide opportunities for individuals with ASD to release energy and reduce feelings of stress and anxiety.
- Exercise stimulates the release of endorphins, neurotransmitters that can improve mood and reduce feelings of depression (Bremer, 2016).

Social Interaction, Social Skills Development:

- Participating in group physical activities such as team sports or exercise classes can facilitate social interaction, communication, cooperation and teamwork

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- Engaging in sports activities fosters the development of communication skills, such as turn-taking, following rules, and understanding nonverbal cues (Obrusnikova& Cavalier,2011).
- Engaging in physical activities with peers provides opportunities for individuals with ASD to practice social skills, such as taking turns, sharing, and cooperating (Bandini et all, 2013).

Emotional Regulation and Self-esteem:

- Physical activity can help individuals with autism regulate their emotions and reduce stress and anxiety.
- Achieving success in sports can boost self-esteem, confidence, and a sense of accomplishment (Bremer, 2016).

Community Inclusion and Integration:

- Participation in sports activities provides opportunities for individuals with autism to engage with peers in inclusive settings.
- Involvement in community sports teams or clubs promotes acceptance, understanding, and integration within the broader community (Pan, 2006).

By addressing these various aspects of development, sports and physical activities play a crucial role in promoting the overall well-being and quality of life for individuals with autism spectrum disorder.

Balance and coordination for ASD

Controlling everyday actions such as reaching, grasping, walking, and gaze direction requires the coordinated engagement of neurocognitive processes, sensory processes, and reflexes. Continuous movements must be

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planned, begun, guided, monitored, and changed to account for environmental conditions. Autism spectrum disease (ASD) is now known to disrupt not only speech, cognition, mood and emotion, and behavioral regulation (American Psychiatric Association, 2013), but also motor control. Even though suboptimal motor abilities are not regarded as a key hallmark of ASD, clinicians and researchers are well aware of motor impairments. For example, there is a significant overlap between the ASD phenotype and developmental coordination deficit (Sumner et al. 2016). Motor impairments in childhood can have serious consequences.

Motor issues in childhood can have a serious impact since they might lead to decreased participation with peers during play and sports, limiting social interaction and growth.

Some motor issues can be explored using cognitive science principles. The planning, coordination, and execution of motor activities are influenced by sensory processing, cognitive motor planning, and muscle activity pattern timing and sequencing. There is evidence that ASD affects information processing at many levels, and several current treatment options attempt to directly target these more fundamental cognitive processes. In this review, we focused on a very basic motor ability that is crucial for the development of other gross motor skills, which is the act of upright standing, subserving postural control.

Upright standing can be viewed as a finely controlled, open- and closed-loop control process (Collins and De Luca, 1993). During upright standing, the body is in near postural equilibrium, but external and internal perturbations need postural modifications to prevent stability loss. This process entails integrating sensory inputs in order to appropriately identify postural

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orientation and then executing appropriate motor commands to restore postural balance. Balance regulation is not solely reflexive (spinal), but also involves higher regions such as the motor cortex, basal ganglia, cerebellum, vestibular cortex, and brain stem. Several research on autism have demonstrated that not only is postural control disturbed, but also that postural abnormalities predict ASD symptomatology.

During school, children with ASD struggle with gross motor abilities such as running, jumping, and ball tossing (MacDonald et al., 2013). It is widely accepted that these abilities are based on the (still growing) postural control system, particularly among children aged 7 to 10 years (Mickle et al., 2011). Interestingly, poor balancing abilities have been associated to anxiety in behavioral and neurological investigations (Balaban and Thayer, 2001; Erez et al., 2004; Stins et al., 2009). Anxiety is a typical component of autism spectrum disorder (ASD). Anxiety can also change basic sensory processing, changing how sensory input is used to control balance (Horslen and Carpenter, 2011). As a result, autism, anxiety, balance, and gross motor skill development are all intertwined.

Balance refers to the ability to maintain a stable and controlled position, whether static (stationary) or dynamic (moving), by keeping the body's center of mass aligned over its base of support. It involves the coordination of sensory information from the vestibular system (inner ear), proprioceptive input (sensations from muscles and joints), and visual input to make adjustments and corrections as needed.

In the context of physical health and well-being, balance is essential for activities of daily living, mobility, and injury prevention. It is particularly

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important in tasks such as walking, standing, reaching, and participating in sports or recreational activities.

In individuals with autism spectrum disorder (ASD), balance difficulties may occur due to sensory processing differences, motor coordination challenges, or difficulties in integrating sensory information. These difficulties can affect various aspects of functioning, including movement control, posture stability, and participation in physical activities (Fuentes, 2009).

Balance difficulties in children with autism spectrum disorder (ASD) refer to challenges in maintaining equilibrium and stability, which can affect various aspects of motor skills and coordination. While research specifically focusing on balance difficulties in ASD is limited, several studies have highlighted the presence of motor coordination and balance issues in individuals with ASD.

Balance difficulties in ASD encompass challenges in maintaining postural control, coordination, and stability during static and dynamic activities. These difficulties may manifest as unsteady gait, frequent stumbling or falling, and decreased ability to adjust body position in response to changes in the environment(Fuentes, 2009; Jansiewicz et all, 2006; Rinehart et all, 2006).

Coordination refers to the ability to execute smooth, accurate, and controlled movements, involving the integration of multiple sensory and motor processes. It encompasses the synchronization of muscles, joints, and sensory feedback to perform tasks efficiently and effectively. Coordination plays a crucial role in various activities, including fine motor tasks such as writing, drawing, and buttoning clothes, as well as gross motor activities such as walking, running, and throwing.

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In the context of children with autism spectrum disorder (ASD), coordination difficulties may manifest as challenges in motor planning, sequencing, and executing movements. These difficulties can impact activities of daily living, academic performance, and social interactions. Interventions aimed at improving coordination in children with ASD often focus on sensory integration, motor skill development, and occupational therapy techniques tailored to individual needs (Jansiewicz et all, 2006; Rinehart et all, 2006).

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SPORTISM

VOLUNTEER

Volunteering to support autistic children

Volunteering to support autistic children is a wonderful way to make a meaningful difference in their lives and the lives of their families. There are many opportunities to get involved, depending on interests, skills, and the needs of the community.

Here are a few ideas:

1. **Support in Special Education Classrooms**: Many schools and organizations that serve autistic children welcome volunteers to assist in classrooms. You could help with activities, provide one-on-one support to students, or assist teachers with lesson plans.
2. **Autism Support Organizations**: There are numerous nonprofits and support groups dedicated to autism. These organizations often rely on volunteers to help with events, fundraisers, and advocacy efforts.
3. **Therapeutic Activities**: Volunteering at centers that offer therapeutic activities, such as art therapy, music therapy, or equine therapy, can be incredibly rewarding. These activities can provide valuable outlets for expression and communication for autistic children.

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4. **Social Skills Groups**: Some organizations run social skills groups for autistic children to help them develop social interaction skills. Volunteers may assist with organizing activities and facilitating group discussions.

5. **Respite Care Services**: Families of autistic children often appreciate the opportunity to have a break from caregiving responsibilities. Volunteering with respite care services allows you to provide support to families by spending time with their children in a safe and supervised environment.

6. **Community Events**: Many community events, such as inclusive sports programs or sensory-friendly outings, welcome volunteers to help ensure that autistic children feel included and supported.

Before volunteering, it's important to educate yourself about autism and how best to support autistic individuals. Understanding their unique strengths and challenges can help you be more effective in your volunteer role. Additionally, be sure to communicate with the organization or individuals you'll be volunteering with to understand their specific needs and expectations.

What to Expect When Working With People With Autism Spectrum Disorder?????

Each individual with autism spectrum disease is unique. They bring both obstacles and strengths. Maintain patience, understanding, and a good attitude during conversations. The ultimate goal is for the individual to have fun!

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Challenges volunteers might encounter:

• Challenges with transitions and communication, including trouble comprehending idioms, sarcasm, and jokes during golf clinics.

• Need for consistency, routine, organization, and clear expectations

• Understanding nonverbal communication, including body language and facial emotions, can be challenging.

• Sensory needs: high or low sensitivity to noise, temperature, touch, and auditory processing speed.

• Distractions, such as short attention span, hyperactivity, and internal thoughts/self-talk, can lead to poor focus.

• Self-stimulatory actions include recurrent body movements (e.g. flapping, rocking) and vocalizations.

• Social issues include trouble maintaining eye contact, responding to names, recognizing personal space, and comprehending emotions.

• Extrinsic motivators, such as praise or high-fives, may be necessary to encourage participation and follow orders.

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• Difficulty with problem solving, planning ahead, comprehending others' actions, and impulse control.

• Lack of awareness of danger (may swing the golf club about) and wander off (many enjoy water and may be compelled to run away).

Volunteers may encounter the following special abilities:

• Possibilities include pattern recognition, logical thinking, and detecting data inconsistencies.

• Ability to remember concrete concepts, rules, sequences, and patterns.

• Demonstrates strong visual skills.

• Computer and technical skills.

• Intense concentration, and extensive understanding of certain interests (e.g., sports cars, planes, solar system).

• Offer a novel and useful perspective on the world.

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Tips for Working with People With Autism Spectrum Disorder (ASD)

Support areas of weakness while maximizing areas of strength.

• Model: People with ASD are typically visual learners, so SHOW rather than TELL. Use "my turn" and "your turn".

• Get their attention before offering an instruction. To improve comprehension, demonstrate the golf club, ball, and other items at eye level and offer instructions using gestures.

• Motivate students by incorporating special interests into your instruction. For instance, if your child is obsessed with Spiderman, incorporate it into your lessons or games.

• Motivate with high levels of praise. Celebrate even the slightest achievements.

• Organize time together to ensure the youngster understands the sequence of activities and stations.

• If necessary, utilize exaggerated facial expressions, body language, and tone of voice to support.

• To ensure the child understands your message/instruction, avoid asking too

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many questions.

• Increase processing time by slowing down and waiting for a response.

•Remember that the youngster needs to analyze your words, arrange their ideas, choose the best response, and then execute it.

• Be patient and make good use of your wait time.

• Individuals who rely on routines and repetitive behaviors benefit from clear expectations, reducing dread of the unexpected.

• Take a short pause before returning to play or instruction.

Give a "warning" before switching to another activity. For example, one more ball toss into the target, and we will proceed to the putting station.

• Provide clear, simple instructions. Before issuing the direction, ensure that you have the individual's attention.

• Redirect self-stimulatory behavior by involving them in another activity. For example, you are at the putting station and the child starts flapping their arms. Ask them to hold extra golf balls while you demonstrate proper grip on the golf club.

To avoid:

• Perfume

• Velcro if sensitive to sound or touch

• Ringing smartphones (turn off or on vibrate)

• Peanuts

• Photos or videos for confidentiality.

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