

Understanding Riders With Autism Spectrum Disorder

By Keith O'Connor and Anthony Busacca

ften, the first step in helping many center participants is recognizing what triggers their behavior. Not all behaviors can be changed or modified, but by understanding causal factors behind their reactions, strategies can be used to achieve improvement. This is particularly true with participants with autism spectrum disorder (ASD). The current prevalence of ASD in the United States is reported to be one out of every 88 births with more males being diagnosed than females. While the cause of the onset may be open for debate, the number of children diagnosed with ASD has been steadily increasing over the past several decades. The American Psychiatric Association's handbook, the Diagnostic and Statistical Manual of Mental Disorders-V, incorporates the formerly separate categories of autism disorder, Asperger disorder, pervasive developmental disorder not otherwise specified and childhood disintegrative disorder into the overall umbrella heading of ASD.

ASD is identified as a severe qualitative impairment in social interaction and verbal and nonverbal communication with repetitive and stereotyped patterns of behaviors, interests or activities. It is called a spectrum disorder because it manifests itself differently in each individual, with characteristics that range along a continuum in five areas:

- social skills
- communication skills
- · restrictive/repetitive behaviors and interests
- sensory responses
- cognitive abilities

TEACHING TECHNIQUES TO CONSIDER

u⁺1 Use the calming, centering effect of movement in lessons by trying to match the horse's movement to the rider's needs, incorporating frequent changes in rhythm, as well as transitions.

#2 When giving instructions to a participant with ASD, allow adequate processing time before repeating instruction.

\exists Consider having riders with ASD take turns riding each other's horses by having them dismount and then remount a different horse so they will be better prepared when assigned to a new horse.

A Remember that most people with ASD are sequential thinkers, so they will need enough time to process each step of a request from beginning to end in order to respond.

TYPICAL VERSUS ATYPICAL DEVELOPMENT

Individuals on the spectrum present with a range of abilities from low cognition and nonverbal communication skills to highly verbal with above average intelligence. In order to accurately assess a person's ability level, it is important to possess a general understanding of typical human development. The five areas of development are:

COGNITIVE

The child's ability to learn and solve problems. For example: a two-month-old baby boy learning to explore the environment using his hands and eyes or a five-yearold learning to do a simple math problem.

SOCIAL AND EMOTIONAL

The child's ability to interact with others, including demonstrating self-control. For example: a 10-month-old baby waving bye-bye or a five-year-old learning to take turns in games at school.

SPEECH AND LANGUAGE

The child's ability to understand and use language. For example: a 12-month-old girl saying her first words or a five-year-old learning to say feet instead of foots.

FINE MOTOR SKILL

The child's ability to use small muscle groups, specifically in the hands and fingers. For example: an 18-month-old using a spoon for feeding or a five-year-old using a crayon to draw.

GROSS MOTOR SKILL

The child's ability to use large muscles. For example: a six-month-old sitting up with some support or a fiveyear-old learning to skip.

Autism is a lifelong developmental disability; often the person will get stuck in a particular developmental stage and not progress on to the next. Because communication and social interaction are significant problem areas for people with ASD, it is important to understand the major developmental milestones typically developing children are expected to reach. Using the chart on page 41, "Development Milestones and Red Flags," can give PATH Intl. Certified Professionals an idea of the person's developmental age.

EXPLAINING ASD

The behaviors that are perceived to be asocial or disruptive are the result of a neurological dysfunction. It is the inability of the brain to receive, process and respond to sensory and environmental information in an appropriate manner. The theory of under-connectivity suggests that this information processing problem may not be due to a deficit in any one particular structure of the brain. Instead, it is caused by a breakdown in the neural network connections that link different parts of the brain together.

Complex cognitive functions, including perception, memory, attention, learning new skills and problem solving, require constant coordination of all the discrete structures of the brain occurring at incredibly high velocity. An individual with ASD may easily become overstimulated by auditory information if his or her brain is focused on processing visual information, or vice versa. This may apply to any of the other senses as well. According to the theory of underconnectivity, the person is processing information in "monochannel"-mono-hearing, mono-vision, mono-touch, monosmelling and mono-taste. Disruptive behaviors may be triggered by an overload of conflicting sensory information because the brain cannot effectively process all stimuli simultaneously. Sensations of light, sound, touch, smell and even taste can be heightened to such a level that individuals experience the feeling of being overwhelmed until their brain completes the function of processing the overloaded neurological circuit.

To understand how someone with ASD experiences the world, imagine body clipping a horse first thing in the morning without being able to shower and change clothes until the end of the day. Then, envision spending the entire day with millions of microscopic hair fibers embedded in your clothing, pricking your sensitive skin and tormenting your body with every movement. By the end of the day it would be very difficult to concentrate on anything other than ending the agony of a tactile system over-stimulated by the constant assault of those hairs. Individuals with an impaired sensory processing system may experience this level of overload and discomfort constantly throughout the day as they encounter normal sensations of sight, sound and touch.



To be as successful as possible in achieving progress with students with ASD, the instructor needs to be both structured and flexible, two qualities that can conflict with each other. Here are 10 ways to balance those sometimes competing values to help students improve:

1. BEHAVIOR IS COMMUNICATION—

Sometimes, disruptive behavior can be the most effective

form of communication a nonverbal person can utilize. Don't take negative behavior personally. Try to uncover the underlying trigger by trial and error or the process of elimination. Check for physical pain or illness, fatigue or lack of sleep, hunger, thirst or the need to use the restroom.

2. GET TO KNOW THE PARTICIPANT'S PARENTS AND CARE PROVIDERS—Find

out if any behavior management strategies are being used at home and incorporate them into the lesson. This may include Applied Behavior Analysis (ABA), using positive reinforcement to reduce behaviors that cause harm or interfere with learning and to increase useful behavior, or augmentative communication methods, such as the Picture Exchange Communication System (PECS).

3. ALLOW THE PARTICIPANT TO PROCESS INFORMATION WITH ONE

SENSE AT A TIME—Some people cannot process visual and auditory information at the same time. Insisting that the participant look at the instructor who is talking may prevent the student from hearing his or her words. Consider talking without demonstrating and demonstrating without talking. Utilizing the movement provided by the horse and avoiding too much time standing still are good teaching techniques; however, sometimes movement may prove to be too absorbing. A new task or instruction may need to be provided at the halt in order to best capture the rider's attention.

4. MAKE CHANGE PART OF THE

ROUTINE—If a participant has difficulty accepting breaks in routine, consider ways to structure change into the lesson. Prepare for transitions from one activity to the next by using a consistent auditory or visual signal. Show a diagram or picture story of how the lesson will progress from mount to dismount. Consider having the students in a therapeutic riding lesson routinely take turns riding each other's horses during the same lesson. Line the class up, have the students dismount and then ask them go to the horse next in line and remount. Make it a positive experience by telling students they can ride two horses for the price of one. Extra time must be allowed for additional mounting and dismounting and varying saddle size must be considered, but this will greatly reduce the resistance to permanently changing horses when the time comes.

5. MOVEMENT CALMS THE NERVOUS

SYSTEM—A videotape recording of a meeting of highly educated, highly paid Silicon Valley executives revealed the following: A few minutes into the meeting people were observed drumming their fingers on the table, tapping a foot on the floor and/or crossing a leg over a knee and gently shaking their foot. As the meeting

continued people were gently rocking back and forth or side to side in their chairs, standing up and/or shifting their weight from one foot to the other. This shows that even people without ASD seek movement to calm the nervous system and help the brain concentrate on the task at hand. In a class session, trying to match the horse's movement to the participant's needs leads to success, as does incorporating frequent changes in rhythm into the lesson. Transitions between the gaits and within the gaits—having the horse go fast or slow and lengthen or shorten its strides—should be utilized. Another movement exercise that might be incorporated into a lesson is the "gorilla call." Have students thump their chests with their fists. They will experience both a heightened sense of alertness and an increased feeling of calmness.

6. REDIRECT AND SUBSTITUTE UNWANTED BEHAVIOR IF POSSIBLE—If a

participant has a tendency to become physically aggressive with the horse or sidewalkers, deep pressure may help redirect the behavior. Have the student put his or her palms together and press hard as a substitute for pinching or biting others, or give the student something with a firm consistency like a thick rubber ring to squeeze. If the students respond to deep pressure, wearing a tight fitting vest may help them remain calm and organize their thoughts.

7. ALLOW ADEQUATE PROCESSING TIME BEFORE REPEATING INSTRUCTIONS—If the

student is a sequential thinker, as many people with ASD are, his or her mind will need enough time to process each step of a request from beginning to end in order to respond. If this thought process is interrupted by repeating the instruction, the student will hear a brand new instruction and start over, even though the same words were used. The amount of processing time required varies with each individual.

8. MAKE YOURSELF NON-

THREATENING—Use a calm, even tone of voice and maintain relaxed posture. Approach the student from the side, allowing the student to use his or her peripheral vision, rather than approaching directly from the front. If the student needs physical assistance, tell him or her when, where and why you need to touch. Use a firm touch instead of a light touch. Keep your hand open with fingers flat, or close your fingers into a fist to avoid pinching and grabbing.

9. USE SIMPLE LANGUAGE AND SHORT

SENTENCES—If an individual speaks in two- to three-word sentences, use no more than three- to four-word sentences.

10. NOT ALL NEGATIVE BEHAVIOR IS DISRUPTIVE—It may present itself as detachment and

DEVELOPMENT MILESTONES

Comparing a child's developmental progress to what is considered normal, as well as looking at areas that are impacted by ASD, can help an instructor gauge a participant's developmental age.

NORMAL STAGES

1 YEAR—recognizes his or her name; understands simple directions; initiates familiar words and gestures

1 V2 YEARS—combines two words such as "all gone"; follows simple commands; verbally makes wants/needs known; uses 10–20 words, including names

2 YEARS—understands simple questions; carries on conversations; uses two- to three-word sentences

2 1/2 YEARS-450-word vocabulary; understands time concepts such as last night and tomorrow; gives first name; holds fingers up to show age

3 YEARS—1,000 word vocabulary; uses three- to four-word sentences; tells a story or relates an idea; asks "what" questions

4 YEARS—identifies colors and shapes; understands time concepts such as next month and next year; begins to use complex sentences; asks "who" and "why" questions

5 YEARS—2,000 word vocabulary; uses future, present and past tenses; possesses left/right hand discrimination for self; shows interest for printed material

G-7 YEARS—identifies most sounds phonetically; begins to write simple sentences; comprehends math concepts such as few and many

B-11 YEARS—defines words from context; introduces self appropriately; engages in small talk with friends; understands verbal humor

11–14 YEARS—displays social and interpersonal communication appropriate for age; forms appropriate peer relationships; uses figurative language; uses abstract conceptualization

ADOLESCENCE AND YOUNG ADULT—interprets emotions, attitudes and intentions communicated by facial expressions and body language; aware of social space zones; displays appropriate reactions to expressions of affection, approval and disapproval

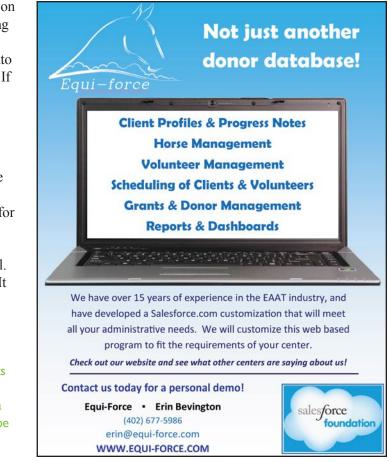
DEVELOPMENTAL RED FLAGS

6 MONTHS: no laughing or squealing
10 MONTHS: does not respond to his or her name
12 MONTHS: is not somehow communicating when he or she needs something
15 MONTHS: can't say one to three words
18 MONTHS: isn't saying at least six to 10 words
21 MONTHS: doesn't pretend play with toys
2 YEARS: can't join two words together
3 YEARS: doesn't use simple sentences or ask questions; has no interest in interacting with other children

disconnection. The person may perseverate or hyper-focus on a sight, sound, sensation or object he or she finds fascinating and not be able to pay attention to the world around the person. At times this intense interest can be incorporated into the lesson activities and used to the instructor's advantage. If this is not possible, ignore the obsessive behavior and only acknowledge appropriate behavior.

Of course, there are many more strategies that can be utilized when teaching participants with ASD. Some very helpful advice the instructor should remember is: someone has already dealt with this issue before. Make a list of people who can offer insight and advice and call on them for assistance when a roadblock is encountered. This list will include parents, family members, care providers, medical professionals, education professionals and other PATH Intl. Certified Professionals, as well as participants with ASD. It is surprising sometimes what participants can teach us.

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