How we choose to attend and how attention deficits can be addressed in therapy with equines

Robin Abbott, MS, OTR

Trained and put horses under saddle
Not a life-long “horse person”
Horses have taught me about myself

Occupational therapist since 1997
Working exclusively with children since 2005
Author of "Sound Advice: How to Help Your Child with SPD, Autism and ADHD from the Inside Out"

Robin Abbott
There’s a lot going on in every second of the day, but we filter out quite a bit of it. How does our brain decide what to attend to, and therefore learn?

**How do we know what to pay attention to?**

- **Vestibular Sense**
  - Gives us “Ground Zero”, the “You are Here” dot on our mental map
  - Informs us when we are safe and secure
  - Directs and filters our attention
  - Helps to sequence events and objects in our surroundings
  - Coordinates our eyes and bodies

- **Auditory Sense**
  - Provides a mental map of our surroundings
  - Alerts us to changes in our environment, including dangers
  - Tells us in which direction to send our attention
  - Develops our internal sense of time, rhythm and sequencing

Credit Williams and Shellenberger’s ALERT Program, aka, “How Does Your Engine Run?”
Green is vestibula, which senses movement and momentum. Yellow is cochlea, which senses sound. Everyone has two, one on each side of the head, and they are really the same organ, interconnected and filled with the same fluid. They both sense motion.

How do you "learn" that?

A table with a bowl on top. How do you "learn" that?

Your inner ear

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Self- vs. non-self-motion

Helps to solve the External World Problem

- You are YOU, and not anyone else
- Lying
- Communication
- Empathy

Vestibular

Green is vestibula, which senses movement and momentum. Helps to solve the External World Problem. You are YOU, and not anyone else.

- Speed
- Orientation
- Equilibrium
SAFE AND SECURE

You are moving when you EXPECT to be moving, and you are still when you EXPECT to be still.

If a child's vestibular system DOES NOT tell them when they are safe, they will depend on other senses:

- Visual
- Tactile
- Proprioceptive

Children who don't feel secure in their position in space will seek out MORE information. It creates a paradox the children who are NOT SENSITIVE ENOUGH to vestibular input will be HYPERSENSITIVE to other inputs.

Also, HYPERACTIVE children are seeking more information for their HYPOactive vestibular systems. The filters are broken!

VESTIBULAR: FILTERING ATTENTION

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VESTIBULAR: DIRECTING ATTENTION
CONTROL OF THE EYES AND BODY

You can see that Caleb doesn’t know where he is, how to stand on the stool, and he is not ready to stand in the water.

VESTIBULAR

Gives us a map of our space
Allows us to not only see but also feel
Check how big our space is
Also allows us to filter and concentrate because we are aware of the size of our space and help us to do that
That can lower anxiety

AUDITORY

What if you had to investigate every sound?
What if you couldn’t tell how far away sounds are coming from?

Different sounds register differently in different situations. If you are already “ramped up” because of fear, anxiety, or a new situation, distinguishing between sounds becomes more difficult. It becomes harder to pick out voices.

AUDITORY EARLY WARNING SYSTEM
Our ears control our eyes
Our ears help develop depth perception
Our ears help us verbally communicate by looking at others’ faces and mouths.
Combined with vestibular/visual lock-on, a child may have very few opportunities to learn to communicate.

The most important rhythm in life leads to the suck, swallow, breathe synchrony.
Rhythm and spaces between sounds are measured by the brain, and we eventually learn to put words to those spaces.
That is the beginning of time awareness and sequencing. An understanding of time is required to understand communication and the audible world.

- Keep verbal communication limited and consistent.
- Sing a song to entrain rhythm and memory.
- Encourage singing and breathing.
- Use oral centering (I love Chewies and Z-vibes)
- Swing before the session, if available.
Most clinical pediatric occupational therapists will address the vestibular system in some fashion. Look for therapists trained in Astronaut Training (from Vital Links), as it is a regimented program that addresses visual function as well.

Auditory therapy works well to address the concerns listed in this presentation. There are many kinds available. Look for therapists certified in:

• Therapeutic Listening
• The Listening Program from Advanced Brain Technologies
• EASe CDs and audio programs
• Trenzas Method
• SAMONAS

SWINGS I LIKE

WHERE TO GO FROM HERE

YOU CAN ALWAYS BUY MY BOOK!
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