

Neonatal Abstinence Syndrome

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What is NAS?

- ▶ NAS occurs when the mother takes drugs during pregnancy.
- ▶ It does not matter the drug.
- ▶ It does matter the amount or what trimester the drugs were taken.
- ▶ Drug addiction affects the whole family
- ▶ These children have endured trauma.
- ▶ The drugs affect the brain. How?

In order to understand NAS you must understand brain development.

- ▶ The brain is developing the entire time it is in utero.
- ▶ In the first trimester, 16 days after conception the brain begins to develop.
- ▶ 6-7 weeks the brain is formed
- ▶ 2nd trimester the baby's nervous system is developed
- ▶ 3rd trimester the babies brain starts to rapidly grow, neurons are firing
- ▶ This is the critical time of deepening the sulci and gyri , the motor control develops, and the cerebral cortex. (thinking, remembering and feeling)

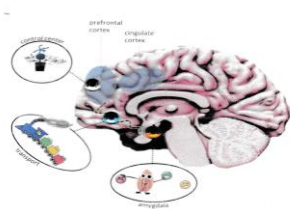
Lets talk about Executive Function and how it correlates to NAS

- ▶ With NAS we focus on the 3 lower. Working memory, mental flexibility, and organization skills.
- ▶ In order to begin therapy with these students we must understand the brain.
- ▶ We need to treat the brain not the behaviors.
- ▶ NAS students are being labeled as Autistic.

Where do we start?

- ▶ We start with the brain. Regulation skills = Mental flexibility
- ▶ In order to learn the brain must be ready to learn.
- ▶ If the brain is in a state of fight or flight the child will be unable to focus.
- ▶ We need to establish a safe calm place.
- ▶ Initial therapy will be coming in your room and playing a game to establish a safe calm place. You discuss regulation, brain function, and calming techniques.
- ▶ Discussion with the teachers on where the dysregulation occurs.

Emotions of the Brain



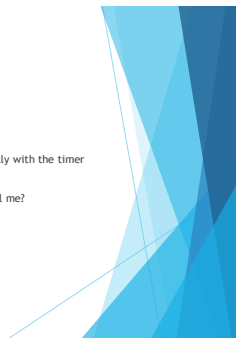
Therapy Techniques

- ▶ Repetition, repetition, repetition.
- ▶ Regulation
- ▶ Social stories, practice them, act them out.
- ▶ Prediction, inferencing, and anticipation activities.



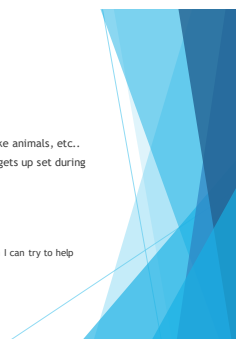
Repetition Ideas

- ▶ Have a routine with these students.
- ▶ Make a list of the tasks
- ▶ Use a timer for transitions between tasks count down verbally with the timer
- ▶ Sandwich new information between old information
- ▶ End the session with what did we work on, what can you tell me?



Regulation techniques

- ▶ Each student is different and reacts differently.
- ▶ Do sensory activities to start the session. Jumping, acting like animals, etc..
- ▶ Practice regulation during the therapy session. If the child gets up set during transitions practice transitions in the therapy session.
- ▶ Play Simon says, red light green light
- ▶ Teach Breathing Techniques
- ▶ When a child is in the reaction state, you should
 - ▶ speak calmly, give them space, tell them when they calm down I can try to help you. Give them a minute with out adult verbalizing at them.



Regulation

- ▶ Mind speak
- ▶ Zones of regulation
- ▶ Naming your brain
- ▶ Expected vs Unexpected behaviors
- ▶ Talk about the brain and the brain's functions

Social Stories

- ▶ Need to be child specific and situation specific.
- ▶ Need to be short simple sentences
- ▶ Need to have cause and effect
- ▶ Need to have an emotion.
- ▶ Need to have a solution or alternative

Social Story example I must control my body



I must control my body. That means my hands, my feet, my teeth and my spit. When I don't control my body, I hurt my friends feelings.



When I am upset I do not bite my friends. It hurts my friends. I should use my words to say. You hurt my feelings, or no it is my turn.

Social story continued



When I am upset with them, and I am having trouble using my words, I should walk away and tell a teacher. That is the best thing to do.



On the playground rocks stay on the ground. No throwing rocks. If I throw a rock it could hit my friends.

Social story continued



When is throwing rocks ok?
I can throw rocks on the river bank or in a creek into the water.
But no throwing rocks on the playground.



Spitting is yucky. I would never spit on my friends. That would hurt their feelings. I don't like to be spit on.

Social story continued



When is spitting ok?
If there is something yucky in my mouth, I can spit in the trash can.
There is no spitting on friends.



Oh no!! Hitting is not good. How sad for this boy. Hitting your friends does not help. You must use your words when you are mad. You can say No, I don't like that or Stop it now!!!

Social story continued



When I am upset with them, and I am having trouble using my words. I should walk away and tell a teacher. That is the best thing to do.

It is never ok to hit a person. You can hit a pillow or blanket if you need to.

Prediction, anticipation, inferencing activities

- ▶ When you establish a routine with the students change it. See how they react and then help them work through it.
- ▶ Let them lead a session and then you don't behave the expected way see how they bring you back to topic.
- ▶ Act out social scenarios with expected and unexpected behaviors/outcomes
- ▶ Play a game and you change it some how.

References

- ▶ <http://kids.frontiersin.org/article/10.3389/frym.2016.00016> Emotions and the brain-or How to Master "The Force"
- ▶ Celebrating connections "Using Play Based and Routine Based Observation to Examine Executive function in Young Children" Barbara Kuzen
- ▶ <https://www.whattoexpect.com/pregnancy/fetal-development/fetal-brain-nervous-system/> Fetal Development: Baby's Nervous System and the Brain.
- ▶ Zones of Regulation: <http://www.zonesofregulation.com/index.html>
- ▶ Neonatal Absence Syndrome [https://www.marchofdimes.org/complications/neonatal-abstinence-syndrome-\(nas\).aspx](https://www.marchofdimes.org/complications/neonatal-abstinence-syndrome-(nas).aspx)
