

Pediatric Speech and Language Disorders: How the Opioid Epidemic has changed the landscape

Pam Holland, MA-CCC-SLP, BCS-S

Chair & Graduate Program Director

Department of Communication
Disorders

Marshall University

304-696-2985

holland@marshall.edu



Founder and CEO

Family First Feeding, LLC
West Virginia Birth to Three
Cabell and Wayne Counties

304-638-6907

familyfirstfeeding@gmail.com



Disclosures

- **Financial**

- Receive a stipend as PI for grant from West Virginia Department of Education: “The Role of Speech-Language Pathologist in the Opioid Epidemic: Prevention, Assessment, Intervention, and Interprofessional Collaboration in the Educational Setting”
- Receive a salary from Marshall University
- Receive reimbursement for services provided by Family First Feeding, LLC

- **Non-Financial**

- Member of Healthy Connections Coalition
- Coordinator for the Healthy Connections Developmental Clinic

Course Outcomes

- Reflect on referral practices for children with a history of opioid exposure.
- Utilize resources provided to ensure timely, developmentally appropriate, and specific referrals for children and their families.
- Evaluate stigmatizing language utilized within organizations and between patient and providers



The Changing Landscape



Beyond the prenatal period

First Year

- Delayed cognitive, linguistic, & speech development
- Delayed fine & gross motor development
- Atypical self-regulation & sensory seeking
- Strabismus
- Hearing Concerns

Moving into the School age years

Higher rates of:

- Executive function & cognitive concerns
- Motor issues
- Difficulties with behavioral regulation
- Emotional Concerns
- Speech/language delays
- Hearing deficits
- Ophthalmic issues

Academic gap widens as the years progress.
Gaps first identified in elementary school.
Gaps persisted and widened in middle and high school years.

Oei et al. 2017

NAS and Cleft Lip and Palate

Dannis, et al, (2021) found an association between NAS and CLP, specifically isolated cleft palate, suggesting that prenatal exposure to opioids may be an environmental risk factor in the development of CLP.

- Among 3.8 million weighted in-hospital births, prevalence rates of CLP in the NAS and non-NAS populations were 3.13 and 1.35 per 1000, respectively.

Application:

- SLPs may also see an increase in CLP on their caseload
- SLPs may want to increase their knowledge base of cleft lip and palate (specifically) submucosal cleft that are often overlooked
- Medical professionals should consider implementing a more in-depth examination of the oral cavity with this population

Dannis, et al., 2021

Our Research

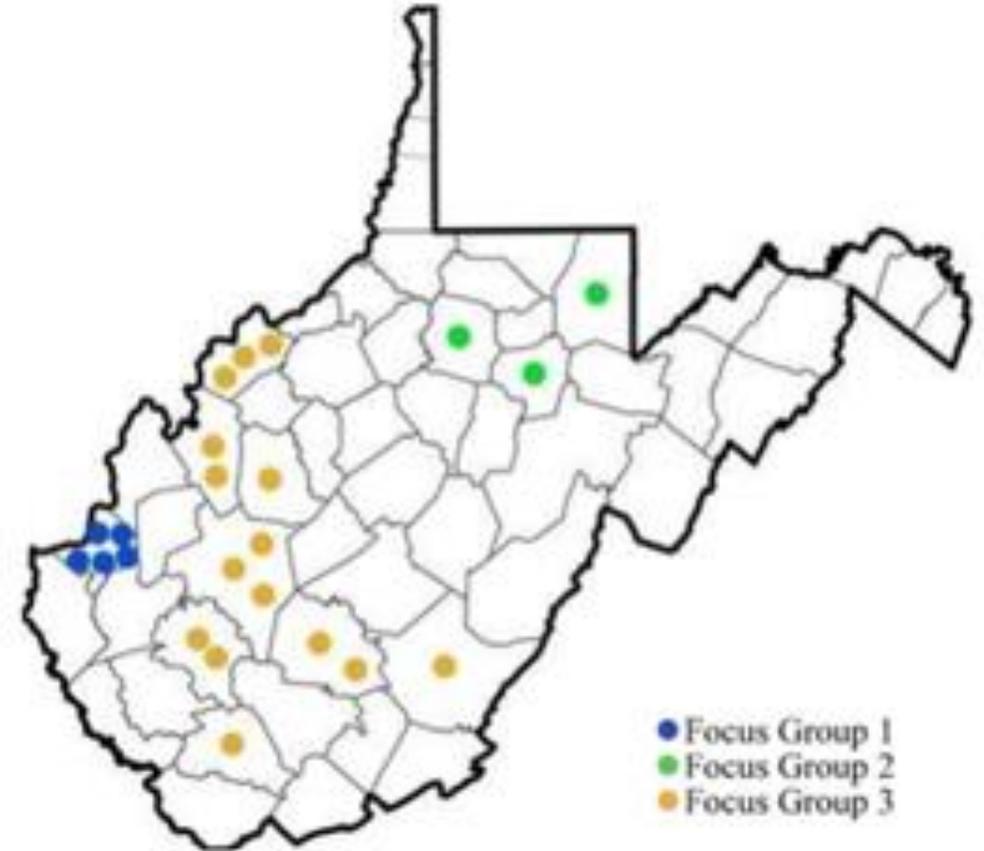
Department of
Communication
Disorders
&
WV Department
of Education



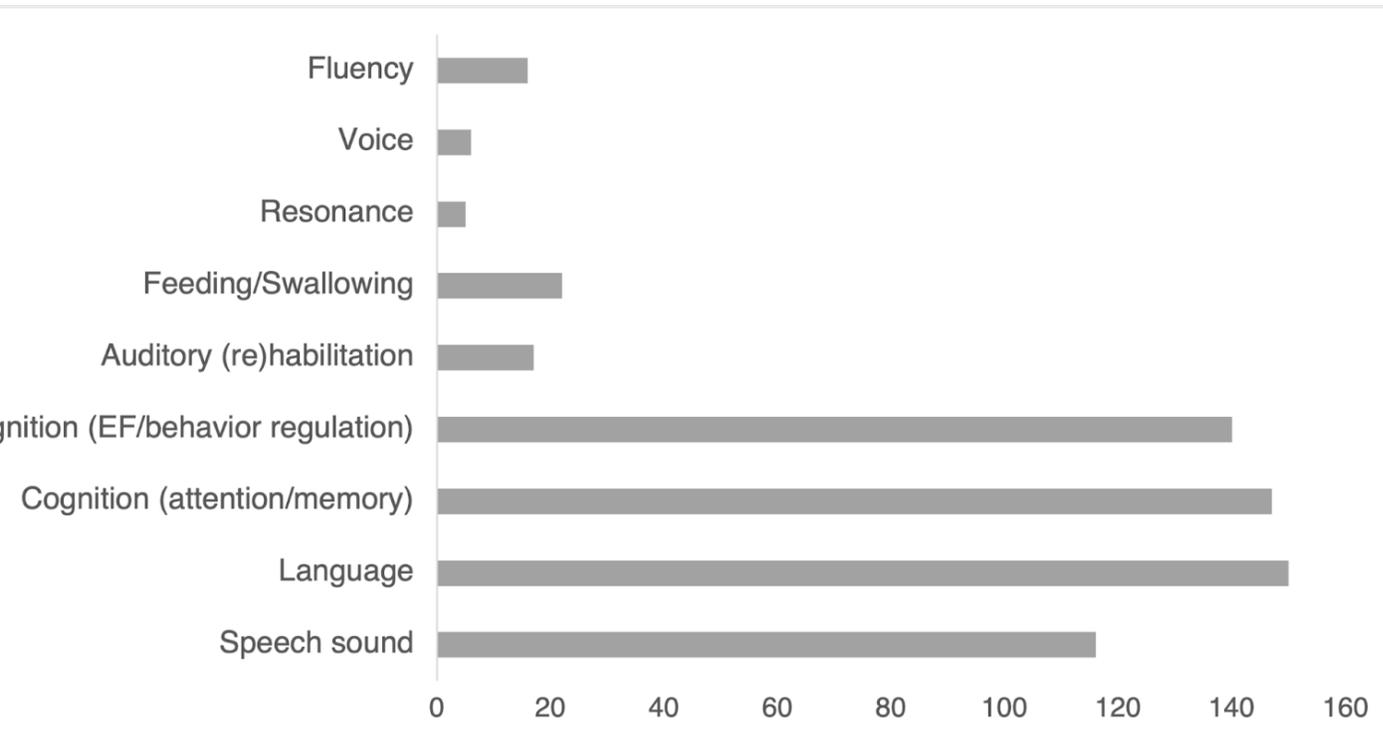
Focus Group

- 20 school-based SLPs across WV
- Ranging <1 year (CF) to 28 years experience
- Primary age group on caseload was pre-K through 5th grade with some working through 12th grade.
- Three focus groups
- FG1, $n=5$
- FG2, $n=5$
- G3, $n=10$.
- 12/55 counties represented

Map of counties represented by participants.



SLPs in the schools: Preschool and Beyond



- In West Virginia, approximately 22% of SLPs in the schools reported that they believed that anywhere from $\frac{1}{4}$ to $\frac{1}{2}$ of their caseload had prenatal exposure to opioids.
- In this population, the most common domains of deficit observed were **Cognition** (both executive functioning/behavior regulation and attention/memory), **Language**, and **Speech Sounds**.

Focus Group Findings



- **Clinical Characteristics:**
 - Speech Sound Disorders
 - Language Disorders
 - Cognitive & Executive Function Challenges
 - Other Developmental Delays
- **Significant differentiators**
 - Greater severity/needs
 - Inconsistent performance
 - Atypical Manifestation
- **Confounding Variables**
 - Safety and Wellbeing
 - Home Environment
 - School Environment



NAS, NOWS and CHOE

CHOE: This is an acronym our research team coined and relates to the population we are seeing on our caseload and are investigating with the grant funded by the WV Department of Education.

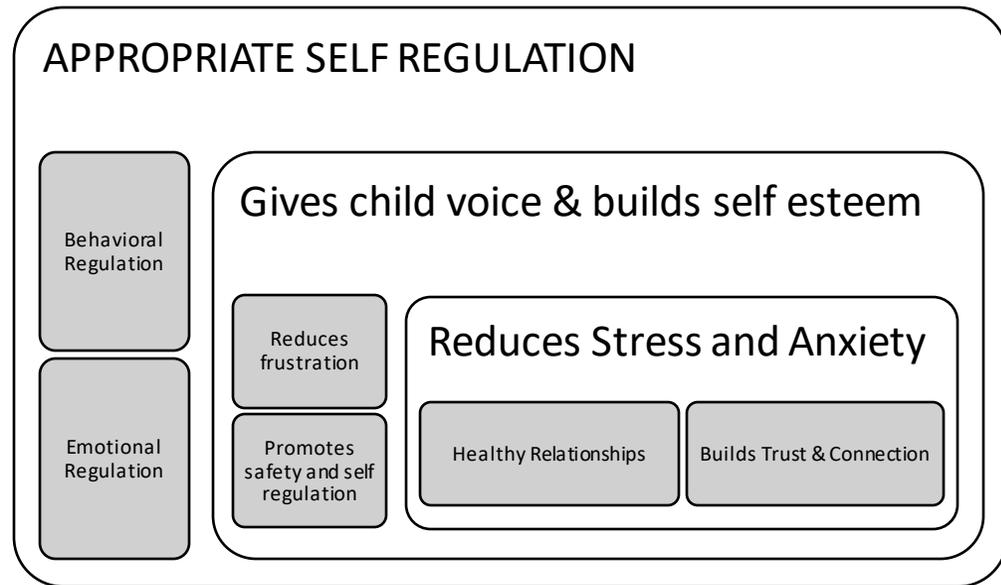
Children with a history of opioid exposure, (CHOE) does not just represent the infant prenatally exposed to opioids, but rather includes the many confounding variables which include children:

- exposed to opioids prenatally, whether they required pharmacological treatment or not;
- diagnosed with NOWS (Patrick et al., 2020) following birth;
- who have one or more members of their family who use or have used opioids;
- who have been displaced due to a parent or caregiver who uses or has used opioids;
- whose lives have been affected by the trauma associated with a familial environment that includes opioid use, misuse, or medically assisted treatment for opioid use;
- who have caregivers in recovery from opioid use.



Importance of CHOE & Broader definition

- Allows us to consider the social emotional variables when making a referral
- Incorporates children that have been exposed to trauma at any level
- Prevents children from falling through the cracks or being identified later



Foley & Hochman (2006)



How can physicians help?

- **REFER!**
 - Early Intervention programs
 - WV Birth to Three
 - KY First Steps
 - OH Help Me Grow
 - Outpatient therapy clinics - all have waitlists
 - Marshall University Speech and Hearing Center
 - Cabell Huntington Hospital
 - Autism Services Center
 - Family Counselling
 - Parent-Child Interaction Therapy



We are...Community-Centered and Family Focused.

We help develop a family-supportive care network that provides the tools and support that caregivers need to successfully enter and remain in recovery so they can raise their children in a supportive and healthy environment. In addition, community-wide educational efforts seek to reduce stigma and promote resiliency.

We are...Caring for Children

Exposure to opiates and other substances places children at risk for developmental delays and disorders which may lead to poor academic, social, and medical outcomes. The Coalition supports validated assessment of children to ensure effective and time appropriate interventions to curb the negative impacts of prenatal substance exposure.

We are...Collaborating

Our community has many strong, supportive networks that serve pregnant and parenting women, and families that provide care for children with prenatal substance exposure. Healthy Connections will build on existing infrastructure and promote information sharing to ensure that these vulnerable families are provided the individualized and consistent support essential for success.

We are...Cutting Edge

Healthy Connections Coalition members are leading the way in developing and providing cutting edge substance use disorder treatment across the lifespan. From the tiniest of babies who were prenatally exposed to substances, to their families.

We are...Educating

Healthy Connections will take a leadership role in providing up to date information on children born with prenatal substance exposure, their developmental needs, early intervention and assessment, and supporting caregivers on their pathway

Healthy Connections Developmental Clinic

MISSION

The mission of the Healthy Connections Developmental Clinic is to **provide a comprehensive and collaborative environment for families who have experienced substance use disorders** to ensure children and families are supported and successful throughout their journey by providing interprofessional, developmental screenings, referral resources, and establishing lasting and supportive relationships.

VISION

The vision of the Healthy Connections Developmental Clinic is to:

1. Ensure all families and children impacted by Substance Use Disorder (SUD) have access to timely, efficient, individualized wrap-around care with on-going opportunities for healthy brain development
2. To ensure families, health care providers and educators are aware of the services provided and want to be a collaborative partner in raising future generations
3. Become a professional development hub regarding best practices for working with families with a history of SUD



Thoughts about Stigma

- We know early intervention works!
- We know parents and caregivers are the decision makers in Early Intervention practices.
- We must connect and create collaborative and supporting relationships with families in order to make a difference in the lives of the family unit.
- We know perceptions = reality.

Powerful Quotes



“School sent home oral care instructions with a toothbrush and toothpaste. I think they still see me as someone who is using.”



“Every time I go to the doctor, I feel judged because I have to disclose my son was prenatally exposed to opioids. I know they see that in his chart. Then I feel like I have to say, he was adopted so they know it wasn't me.”



“I want to bring him to therapy because I know he needs it, but I don't have heat in my car. He doesn't want to put clothes on and then he has a meltdown and cries non-stop when we get home.”

Case Studies

	Mandi & Gibson	Markey & Ramey	Bonnie & Sarah	Alys & Kevin	Katie & Liam	Heidi & Deon	Aaron & Timothy
Referral / Age	IP clinic 1 m	BTT 7 m Virtual Relationship	BTT 12 m	BTT 13 m	IP clinic 15 m	BTT 15 m	OP clinic 22 m
Perceived Clinical Characteristics	F/M	F/M	S/L/C/F/M SI	F/S/L C/SE/M	S / L	F/ S/ L/C/M/ SI Concerns for ASD	S/L/C/M/SI/F/SE/V
Perceived Significant Differentiators		Inconsistent performance	Greater severity of needs	Greater severity of needs	Greater Severity of needs	Greater severity of needs	Greater severity of needs
Perceived Confounding Factors	First time mom Enrolled in Recovery program Family history of SUD Trauma & active recovery	Stigma Did not want providers in house	Grandparents fostering to adopt	Foster care with visitation with biological father	Trauma Family history of SUD Active Recovery	Stigma challenging family dynamics	Adopted Collaborating with multiple agencies
Length of Relationship	15 m	2 m	18 m	12 m	15 m	7 months	24 m



Questions?



The Importance of Environment

“Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it is the only thing that ever has.”

~ Margaret Mead

References

Beckwith, A.M. & Burke, S.A. (2015). Identification of early development deficits in infants with prenatal heroin, methadone, and other opioid exposure, *Clinical Pediatrics*, 54, 328-335.

Danis, D. O., 3rd, Bachrach, K., Piraquive, J., Marston, A. P., & Levi, J. R. (2021). Cleft Lip and Palate in Newborns Diagnosed With Neonatal Abstinence Syndrome. *Otolaryngology--head and neck surgery : official journal of American Academy of Otolaryngology-Head and Neck Surgery*, 164(1), 199–205.

Hudak, M.L. & Tan, R.C. (2012). Neonatal drug withdrawal. (Guideline). American Academy of Pediatrics.

Hunt RW, Tzioumi D, Collins E, Jeffery HE. (2008). Adverse neurodevelopmental outcome of infants exposed to opiate in-utero. *Early Human Development*, 84, 29–35.

Konijnenberg, C.,A. Melinder, A. (2015) Executive function in preschool children prenatally exposed to methadone or buprenorphine, *Child Neuropsychology* 21, 570–585.

Maguire, D.J., Taylor, S., K. Armstrong, K. E. Shaffer-Hudkins, E., Germain, A.M., Brooks, S.S., et al. (2016). Long-term outcomes of infants with neonatal abstinence syndrome *Neonatal* , 35, 277-286.

Nygaard, E., Moe, V., Slinning, K., Walhovd, K. (2015) Longitudinal cognitive development *Pediatric Research*, 78, 330–335.

Oei, J. L., Melhuish, E., Uebel, H., Azzam, N., Breen, C., Burns, L., Hilder, L., Bajuk, B., Abdel-Latif, M. E., Ward, M., Feller, J. M., Falconer, J., Clews, S., Eastwood, J., Li, A., & Wright, I. M. (2017). Neonatal abstinence syndrome and high school performance. *Pediatrics*, 139(2). <https://doi.org/10.1542/peds.2016-2651>

Patrick, SW., Barfield, WD., Poindexter, BB., AAP Committee on Fetus and Newborn, Committee on Substance Use and Prevention, Cummings, J., Hand, I., Adams-Chapman, I., Aucott, S. W., Puopolo, K. M., Goldsmith, J. P., Kaufman, D., Martin, C., Mowitz, M., Gonzalez, L., Camenga, D. R., Quigley, J., Ryan, S. A., & Walker-Harding, L. (2020). Neonatal Opioid Withdrawal Syndrome. *Pediatrics*.146(5). <https://doi.org/10.1542/peds.2020-029074>