



Prenatal Exposure Webinar



Marshall University
Department of Communication Disorders
Fall 2018



Overview of the Webinar

- This webinar is a culminating project from the class, *The Role of Healthcare Professionals in the Opioid Epidemic: Prevention, Intervention, and Community Efforts*
- Topics will include:
 - What is NAS (Caitlyn Tucker)
 - Rooming in (Samantha Mason)
 - Mental Health in Mothers with Substance Use Disorders (Allison Hatcher)
 - Adverse Childhood Experiences (Heidi Dennison)
 - Symptomatology (Cassidy Martin)
 - Quick Tips (Ronica Hensley)
 - Huntington Happenings (Pam Holland & Mary Weidner)



What is NAS?



Caitlyn Tucker



What is Neonatal Abstinence Syndrome (NAS)?

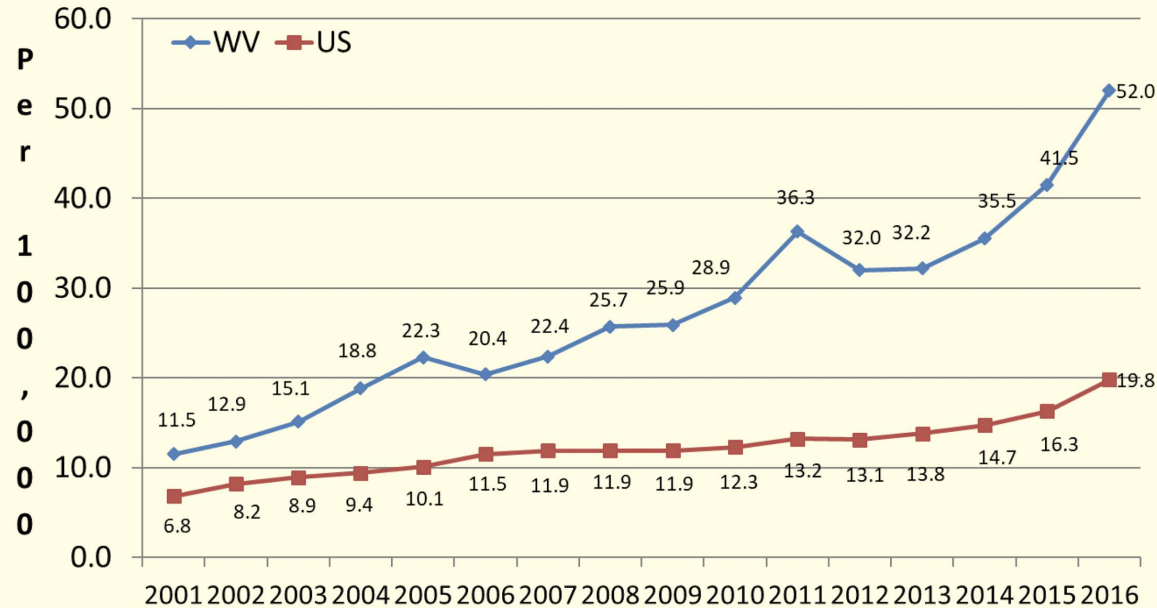
- According to Umer et al. (2018), neonatal abstinence syndrome (NAS) is a multi-system withdrawal syndrome of the newborn that presents shortly after birth when in utero exposure to illegal or prescription drugs (classically opioids) is suddenly discontinued at delivery.
- Characteristics of NAS explained by Umer et al. (2018) are as follows:
 - Excessive sweating
 - Tremors
 - High-pitched cry
 - Poor feeding
 - Watery stools
 - Excessive weight loss

Incidence data related to Neonatal Abstinence Syndrome (NAS)

- Umer et al. (2018) explained that the United States incidence rate of NAS in number of cases per 1000 live births per year has increased from 1.2 in 2000 to 3.4 in 2009 to 5.8 in 2012.
- Stabler et al. (n.d.) examined the 2007-2013 WV Health Care Authority and Uniform Billing Data for WV and found that between 2007 to 2013 the incidence of NAS increased from 7.74 per 1000 live births per year to 31.56 per 1000 live births per year.
- Umer et al. (2018) stated that the 2017 annual incidence rate of NAS was 51.3 per 1000 live births per year for all births and 50.6 per 1000 live births per year for WV residents only.

West Virginia versus United States

2001-2016 Resident Drug Overdose Mortality Rates West Virginia and United States



Data Source: WV Health Statistics Center, Vital Surveillance System and CDC Wonder
Rates are age-adjusted to the 2000 US Standard Million



Rooming In



Samantha Mason



“Rooming-in”- The impact of human bonds on NAS



What:

Infants are moved to the mothers room and monitored. Mothers are able to care for the infant in all areas with the support of medical personnel who will monitor for withdrawal symptoms and discomfort. Pharmacological intervention is also provided when symptoms present.



Why:

Low risk opportunity for new mothers to care for infants with medical personnel to answer questions and assist if needed.



Who:

Mothers are required to have been clean, or in a treatment program for at least 6 months and to be able to stay in the room with the infant for 23 hours per day.

Current research outcomes

Reduced...


- Pharmacological intervention treatment to 14% or less (Abrahams et.al, 2007)
- Length of stay (Saiki, Lee, Hannan, & Greenough, 2009)
- Stress of infant and mother (MacMillan et. al, 2018)
- Cost of treatment (Holmes et. al, 2016)

Increased...


- breastfeeding rates (MacMillan et. al, 2018)
- Discharges to familial home (MacMillan et. al, 2018)

Drawbacks →

- Due to the difficulty for pregnant mothers to be enrolled in treatment programs, many are ineligible for rooming in
- For any families to be able to stay in the hospital 23 out of the 24 hours in a day for up to 6+ weeks, they would need to be unemployed, have familial support at home, currently clean or enrolled in a treatment program.



Mental Health in Mothers of Infants with NAS and Prenatal Opioid Exposure



Allison Hatcher



Mental Health in Mothers of Infants with NAS and Prenatal Opioid Exposure

-According to Faherty, Matone, Passarella, and Lorch (2018), pregnant women using opioids have a high prevalence (56-73%) of mental health difficulties

-In a comprehensive substance abuse treatment program approximately 30% of women screened positive for moderate-severe depression during their pregnancy

-Opioid use in women with depression and anxiety disorders are almost double than those without these diagnoses

-30.9% of mothers of infants with NAS and 21.4% of mothers of infants with LTPOE were prescribed a psychotropic drug during pregnancy when compared with 4.3% of mothers in the control group

-Almost half of mothers with NAS and LTPOE (46.8%) received prescription narcotics during pregnancy compared with 26.7% of controls

-Mothers of infants with NAS have 2.5 times the risk of depression, no difference in the risk of bipolar disorder or anxiety, and at 6.3 times the risk for schizophrenia

Mental Health in Mothers of Infants with NAS: Faherty et al., (2018) study cont.

- Anywhere from 20-90% of infants prenatally exposed to substances develop NAS
- Withdrawal symptoms typically appear earlier in infants exposed to heroin when compared to other opioids and this means some infants are sent home before symptoms appear which causes complications
- Infants with NAS typically have needs for special care and this puts more stress on mothers thus exacerbating mental health difficulties
- This leads to infants with NAS having higher risk for hospitalization due to maltreatment/trauma than infants without NAS
- Mental health diagnoses and inadequate support can affect prenatal care adherence, birth outcomes, and attachment between mom and baby

What can we do to address mental health in this population?

- Ensure mother and infant are cared for as a unit and issues that affect both are not overlooked
- Connect mothers with services for their substance use, resources to help them care for themselves and their infants, and mental health support during the prenatal period
- Screen all pregnant women for mental health diagnoses during initial prenatal appointments in order to provide earlier detection and treatment
- Create a safe environment where women feel comfortable sharing struggles with substance use before, during, and after pregnancy
- The article also suggests “warm hand-offs” of information among clinicians, early involvement of social work and mental health professionals, and optimization of EMR to improve confidential communication of important information regarding substance use/mental health history



Adverse Childhood Experience (ACE)



Heidi Dennison



The Study

published in 1998 by Felitti et al.

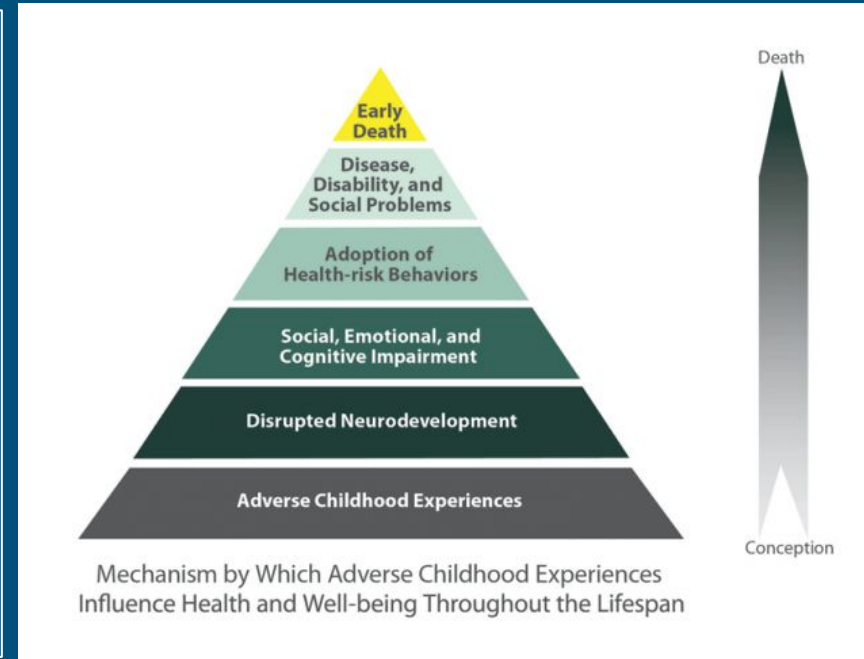
17,337 participants retrospective design

described the effect that 10 categories of adverse childhood experiences (e.g. abuse, household challenges, neglect) have on long-term health outcomes

ACE score sum of categories in one's life
67% Score of 1 11% Score of 5 or more

More information can be found at:

https://vetoviolence.cdc.gov/apps/phl/images/ACE_Accessible.pdf



(CDC, 2016)

ACES can have lasting effects on....



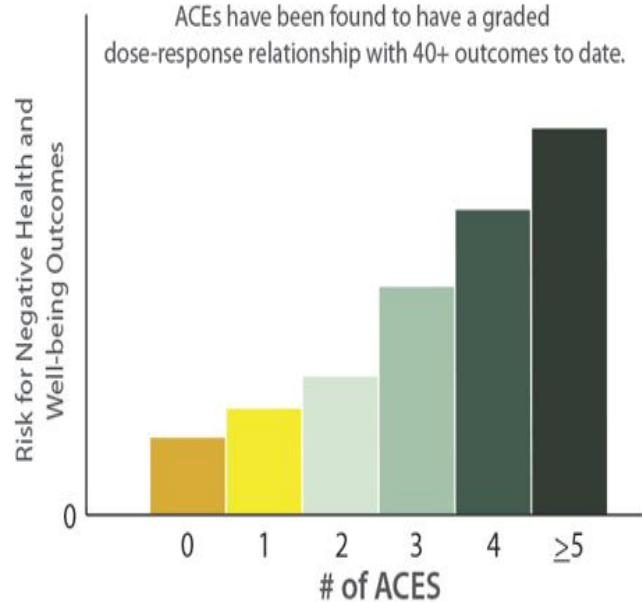
Health (obesity, diabetes, depression, suicide attempts, STDs, heart disease, cancer, stroke, COPD, broken bones)



Behaviors (smoking, alcoholism, drug use)



Life Potential (graduation rates, academic achievement, lost time from work)



*This pattern holds for the 40+ outcomes, but the exact risk values vary depending on the outcome.

Impact on Neurology

Deprivation

- Synaptic pruning in association cortex
 - Deficits in language, executive functioning

Threat

- Subcortical structural damage
 - Emotional/social regulation difficulties, disruptive behavior, poor memory formation

“Children who have experienced trauma are at risk for a variety of developmental delays and disorders, the most likely and long-lasting being communication” (Coster & Cicchetti, as cited in Westby, 2018).

Trauma and Education

Emotional disturbance category given by IDEA is currently the best fit for these students.

Review policies set forth by IDEA and your state for more information.

Current terminology in IDEA does not meet the unique needs of children exposed to trauma (Winder, 2015).

“The American Speech-Language-Hearing Association (ASHA) is advocating interprofessional collaboration in all aspects of speech-language pathology/audiology. The need for interprofessional collaboration is especially essential when working with young children who have experiences multiple ACEs.” (Westby, 2018)



Symptomatology



Cassidy Martin



Symptomatology

- Behavioral Deficits (e.g., hyperactivity, impulsivity)
 - Difficulty with emotional/self-regulation, aggression, effortful control, decision-making
- Attention Deficits
- Cognitive Deficits
- Motor Deficits
- Vision Deficits (e.g., reduced visual acuity, nystagmus)
- Reduced Academic Performance
 - Lower Language Scores
 - Reduced Verbal and Performance Skills



Quick Tips



Ronica Hensley



Managing Difficult Behaviors

Do you have a student who:

- acts impulsively?
- responds inappropriately in social situations?
- displays frequent inattention?
- has an atypical home environment?
- has poor emotional regulation and/or atypical emotional responses?
- produces unintelligible speech?
- doesn't understand cause and effect?
- displays poor memory?
- demonstrates poor sensory regulation and integration?



WHAT YOU CAN DO

1 UNDERSTANDING

- Exposure to drugs or trauma can significantly affect cognition, behavior, communication, and social abilities
- These students gather, process, and interact differently... but not wrongly
- They will need additional or alternative instruction methods to learn skills

2 ATTITUDE

- Behavior won't likely change with traditional methods, so changing yours to meet their needs will be most effective
- Provide **positive reinforcement** for their personality traits and good behaviors

"I'm glad you're in my class and I get to work with you"

3 LEAST RESTRICTIVE ENVIRONMENT

- General education room may be too overstimulating
- Address their symptoms/behaviors, not the disorder
- Collaborate with other teachers, aids, therapists to understand their behavior in ALL environments
- Do they need sensory changes in their environment (low lightening, neutral smells?)
- Are they seated in the most appropriate seat/area?
- Refer when necessary: psychologists, speech and language, OT, PT, etc.

4 DISCIPLINE VS. PUNISH

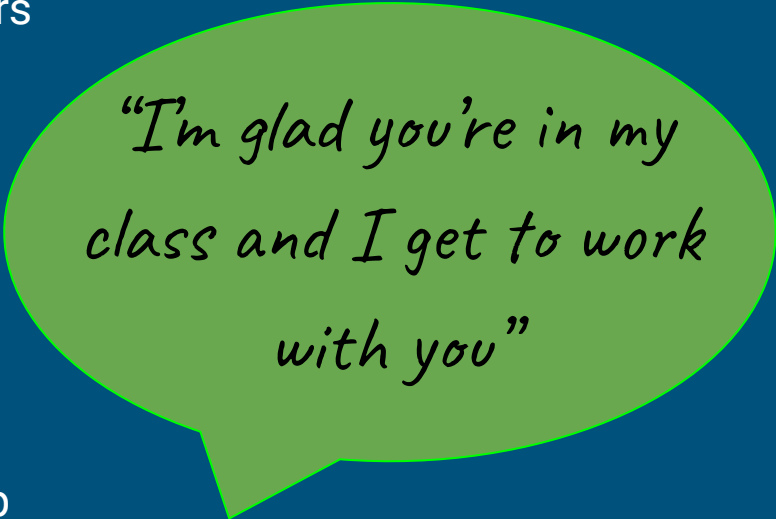
- Help them solve the problem they are acting out about
- Give consequences that reduce behaviors rather than punish them for behaviors
 - "If you do _____, then you get to _____."
- **Explain why** they are receiving consequences
- Give them tools and/or strategies to fix or prevent negative behaviors in the future

5 TECHNIQUES

- Say their name before giving directions
- Provide intentional eye contact when addressing them
- **Rephrasing** to make sure they understand
- Check for comprehension
- **Narrate** their behaviors and feelings
 - "You're feeling _____ because _____."
- Explicitly define how to respond
 - "You can do _____ to feel better or instead of that"
 - "You can say _____ to get what you want."
- Provide **visual cues** with activities
- **Model! Model! Model!**... the skills they need to learn

Quick Tips

- Positive Reinforcement for traits and behaviors
- Say their name before giving directions
- Eye contact when addressing them
- Rephrasing for comprehension
- Narrate their behaviors and feelings
- Define how to respond
- Explain why for consequences and future help
- Visual cues
- Model! Model! Model!



*"I'm glad you're in my
class and I get to work
with you"*



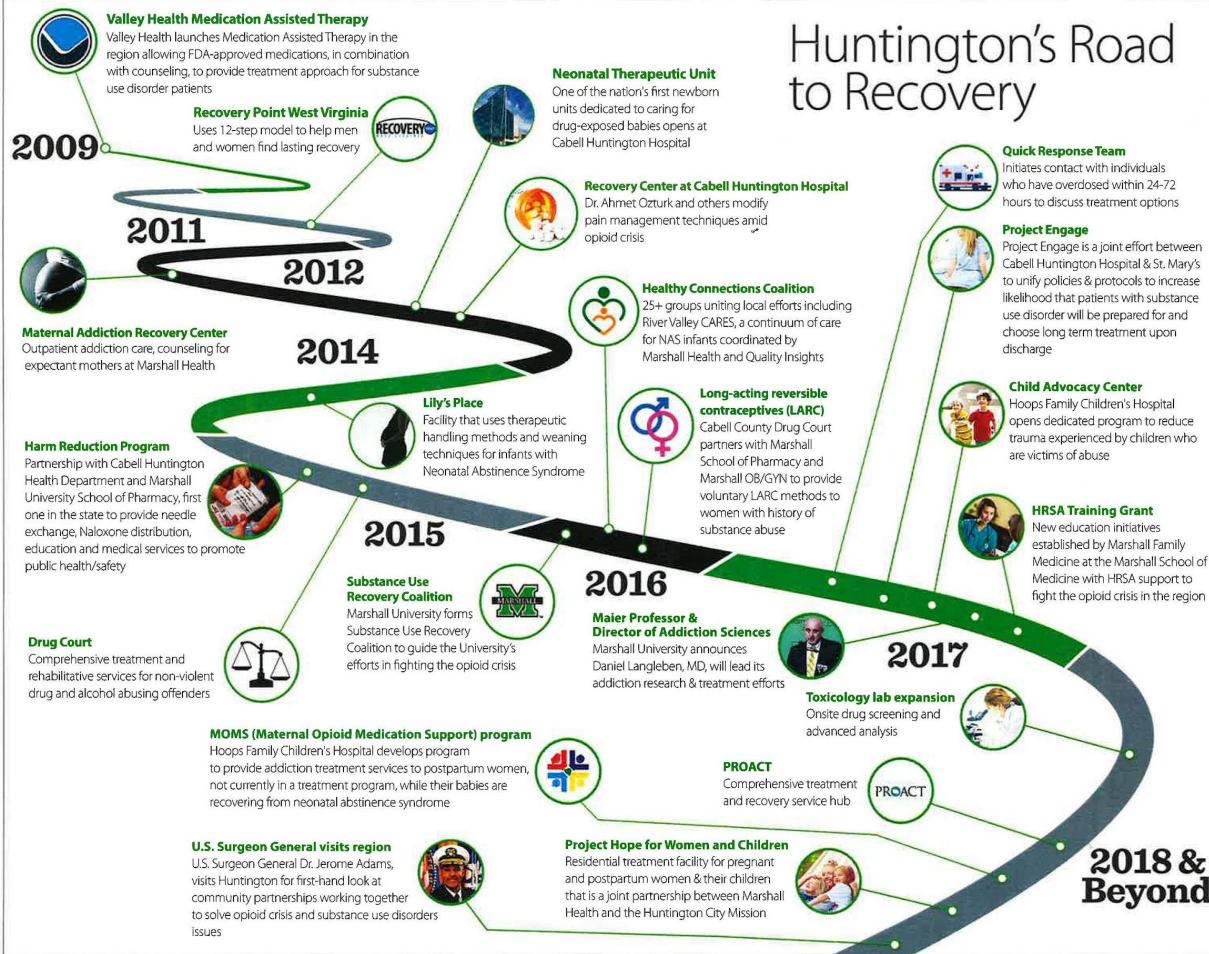
Huntington Happenings



Pam Holland & Mary Weidner



Huntington's Road to Recovery



THANK YOUS!

- Melanie Akers - Director, Hoops Children's Hospital
- Sara Murray - Director, Cabell Huntington Hospital NTU
- Dr. Kalpana Miryala, guest speaker
- Dr. Amy Carleson, guest speaker
- Kelly Harlow, guest speaker
- Dr. Carrie Childers, guest speaker

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