Potpourri of Child Neglect: Drug-exposure, Failure to Thrive, Medical Care

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Neglect
• Definition
  • Act of “omission”
  • Action or failure to act which results in harm or risk of harm
  • Each state has its own specific definition
    https://www.childwelfare.gov/pubs/focus/acts/

Forms of Neglect
• Medical
• Nutritional (Malnutrition, FTT)
• Supervisory
• Substance mis-use/drug exposure
• Educational
• Environmental
• OFTEN co-occur with other forms of maltreatment

Substantiated Cases by Child Welfare: 2013 (NCANDS)
“Serve and Return”

- Development of healthy brain architecture relies on responsive “serve and return” encounters
- Majority of brain growth and neural connections occur in first few years of life
- Resilience can mitigate some of the negative impact of adversities
  - Most common factor associated with resilience is the presence of at least one supportive parent, caregiver or other adult in the child’s life

http://developingchild.harvard.edu/

Consequences of Neglect: Ages 0-6 years

- Delays in language
- Increased aggression, anger and conduct problems
- Negativity in play, poor peer relationships
- Negative maternal-child interactions

- Naughton et al., JAMA Peds 2013; Volume 167(8).

Consequences of Neglect: Ages 5-14 years

- Increases in inattention, impulsivity, hyperactivity
- Difficulty initiating or developing friendships
- Reduced literacy
- Low self-esteem
- Increase in depression and suicidality

- Maguire et al., Child Care Health Devel 2015; March 3.

Drug-endangered children

- Children living in drug labs
- Peer exposure to drug use/distribution
- Drug-exposed infants
- Living with a drug abusing caregiver

Substance abuse and child maltreatment by Wells, Peds Clin N Am April 2009
Drug-exposed Newborns
Garrett’s Law

- Methamphetamine
- Cocaine
- Marijuana
- PCP (Hallucinogens)
- Opiates (Narcotics)
- Benzodiazepines (Sedatives)

Stimulants

Prescription

Alcohol and Nicotine not included

Who gets tested?
Provider dependent...not universal

- Maternal indicators
  - Known drug abuse by mom or altered state
  - Lack of prenatal care
  - STD
  - Placental abruption
  - Unexpected pre-term labor

- Newborn indicators
  - Agitated/altered mental status in mother
  - Unexplained CNS complications
  - Seizures, hemorrhage
  - Drug withdrawal symptoms
  - Tachypnea, hypertonicity...
  - Changes in behavioral state
  - Jittery, fussy, lethargic...

Wagner et al. Obstet and Gynecol Clinics of North America, Vol 25(1)
ANGELS Neonatal Guideline: Newborns exposed to illicit drugs in utero

Drug Testing

- Urine
  - Shows drugs that were likely to be used by mom around the time of delivery.
  - Days
  - Negative test in baby doesn’t mean drug wasn’t in baby because drugs clear quickly from the urine in babies and often void before sample is collected
  - Meconium (early baby stool)
  - Longer window of exposure
  - Days to weeks to months (starts to form mid 2nd trimester)
  - If mom used drugs right at delivery, may not have made it into meconium yet after delivery of baby.

Testing

Screening

- Benefit
  - Quick results
  - Easy access
  - Low cost

- Limitations
  - Indirect identification (risk of false positive)

Confirmatory

- Benefit
  - Direct identification (lower risk of false positive)

- Limitations
  - Turnaround time
  - Reference labs
  - Cost
### Drug Class Table

<table>
<thead>
<tr>
<th>Drug Class</th>
<th>Drugs in class</th>
<th>False (+) possibilities (not a complete list)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amphetamines (AMP)</td>
<td>Methamphetamine, amphetamines (ADD and weight loss)</td>
<td>Anti-depressants</td>
</tr>
<tr>
<td>Opiates</td>
<td>Heroin, morphine, oxycodone, hydrocodone</td>
<td>Dextromethorphan (DM), poppy seeds</td>
</tr>
<tr>
<td>Marijuana (THC)</td>
<td>Cannabinoids</td>
<td>Ibuprofen (NSAIDS)</td>
</tr>
<tr>
<td>Cocaine</td>
<td>Cocaine + metabolites</td>
<td>Amoxicillin</td>
</tr>
<tr>
<td>Benzodiazepines (Benzo)</td>
<td>Diazepam (Valium)</td>
<td>Ibuprofen (NSAIDS) famotidine (Pepcid)</td>
</tr>
<tr>
<td>Phencyclidine (PCP)</td>
<td>PCP</td>
<td>Dextromethorphan (DM), allergy meds (Benadryl)</td>
</tr>
<tr>
<td>Barbiturates (Barbs)</td>
<td>Amobarbital, secobarbital (sleep aids)</td>
<td>Phenobarbital (seizure medication)</td>
</tr>
</tbody>
</table>

### Drug Testing

**Hair**
- Send out test so longer time for results
- Have to have hair (1 inch of growth)
- ~ 3 month window of exposure depending on technique used by lab performing the test
- Positive could be from drug residue on surface of hair or drug in system that is growing out in hair shaft (if test performed without pre-test washing of sample)

**Notes**
- Methamphetamine breaks down to amphetamine in the body. Amphetamine (ADD meds) does not convert up to methamphetamine
- “Synthetic” opioids such as methadone and fentanyl will not make a routine drug test for opiates turn positive (test must specifically say it looked for these)
- Cocaine breaks down to metabolites with other names: Benzylecgonine (BE), norcocaine, coca-ethylene
- Synthetic cannabinoids (K-2, Spice, etc.) will not make a routine drug test for marijuana turn positive
Increased Exposure Risk to Children in Drug Endangered Homes

- Developmental:
  - Grabbing/Hand-to-mouth behaviors.
  - Close to ground/floor.
  - Attracted to bright colors/sweet tastes.
  - Unknowingly imitate caregivers.
  - Playing outside.
  - Wrong place/wrong time.
Drug Exposure Effects

- Newborns
  - Most babies born exposed to drugs during pregnancy are born healthy and at term
  - Neonatal Abstinence Syndrome (NAS)
    - Opiates such as hydrocodone, methadone, heroin
    - Sometimes attributed to methamphetamine or benzodiazepine/sedatives as well
    - Scoring system and medication for symptoms

- What are the possible health effects?
  - Immediate
    - Smaller than expected growth in uterus
    - Placental abruption
    - +/- Prematurity
    - These can occur with no drug exposure
  - Long-term
    - Subtle but measurable deficits in learning and attention
    - Multiple factors affect learning outcomes

Drug exposure effects-direct

- Children exposed after pregnancy:
  - Accidental/intentional ingestion of drugs in home can cause serious illness and even death.
  - Chemicals used in drug manufacturing ("meth labs") can cause chemical burns to body and fire/explosion of surroundings.
  - Passive exposure to cigarette and drug smoke can cause problems with breathing and recurrent respiratory illnesses (sinuses, asthma flare-ups, etc.)
  - Needle stick injuries with used needles can cause hepatitis or HIV.

Drug Exposure Effects-Indirect

- Co-occurring risk factors
  - Neglectful supervision can lead to risk or injury, not getting regular medical/dental care for child, school absences, etc.
  - Prior maltreatment of current child or other child in the home
  - Undiagnosed or under treated mental health issue in the caregiver
    - Does the caregiver realize they have a problem and need help?
  - Domestic Violence in home
    - HITS screening
    - Hurt, Insult, Threaten, Scream
Domestic Violence in the home with children

- Direct:
  - Child physically injured during altercation
- Indirect:
  - Child emotionally injured from witnessing violence (direct?)
  - Caregiver less able to respond to patient’s needs
  - Child learns negative relationship and regulation skills
  - Increased depression and lower school performance in children

Adverse Childhood Experiences
https://www.cdc.gov/violenceprevention/acestudy/index.html

- Abuse
  - Physical, Sexual, Emotional
- Household Challenges
  - Parent treated violently
  - Incarceration of a parent
  - Parent with substance abuse or mental health disorder
  - Parental separation or divorce

- Graded dose-response relationship between # ACEs and negative outcomes for health and well-being across the lifespan

Failure to Thrive

- Failure to grow at expected rate for children of similar age and gender
  - Weight crossing 2 major percentiles downward
  - Ratio of weight to length is less than 10th %
- At risk populations
  - Preterm/low birth weight infants
  - Issues causing neurologic dysfunction
  - Household food insecurity
  - Stressors in the home
  - Lack of maternal support

Failure to Thrive

- Birth history, past growth plots, known medical problems, feeding history
- Typical ranges
  - First month ~ 1 ounce a day (back to birth weight by 2 weeks)
  - Double birth by 6 months
  - Triple birth by a year
  - Quadruple birth by 2 years

16 ounces in 1 pound and 1 kilogram = 2.2 pounds
Failure to thrive

- Can be problems going on with a body system that cause a child to not grow properly = ORGANIC FTT
- If the child is not being fed enough calories but gains weight when fed appropriately = Non-ORGANIC FTT (Nutritional Neglect)
- Children with medical or feeding issues whose needs are not met by caregivers = MIXED FTT

Why is FTT a big deal?

- Brain grows as much in the 1st year as it will during the rest of the life
- 700 new neural connections per second
- If FTT extends beyond 6 months of age, may never reach full brain growth potential

Treatment plan

- Ensure caregiver understands feeding/treatment plan
- How much, how to mix, how often
- Resources to obtain formula/food
- WIC, transportation, supply company delivery
- Follow up plan
- PCP’s office, Home health weight checks
- Contact if’s if questions
- Assess for other barriers
  - substance abuse, DV, mental illness, economic barriers

Failing to Thrive

- Poverty/Low maternal education
- Generational child maltreatment
- Caregiver mental health/substance abuse issues
- Family dysfunction/lack of supportive role models
Medical Neglect

“Lack of medical treatment or failure to follow through with prescribed treatment for a condition that if untreated could become severe enough to constitute a serious or long-term harm to the child.”

Factors considered:
- Seriousness of the health problem
- Probably outcome (and severity) if not treated
- Generally accepted medical benefits and side effects of the prescribed treatment

Questions.....Discussion??

• Extra Resource Slides follow.....

Domestic Violence Resources

- Arkansas Commission on Child Abuse, Rape and Domestic Violence: Link to the Domestic Violence Resources: http://accardv.uams.edu/domestic-violence/resources-related-to-domestic-violence/
- Arkansas Attorney General’s Website: http://arkansasag.gov/programs/domestic-dating-violence/lauras-card/

Toxic Stress
http://developingchild.harvard.edu/science/key-concepts/toxic-stress/

http://tedmed.com/talks/show?id=293066
Nadine Burke Harris, MD

Commission to Eliminate Child Abuse and Neglect Fatalities (CECANF)--Final Report--March 17, 2016

• https://eliminatechildabusefatalities.sites.usa.gov/