

Fetal Alcohol Spectrum Disorder INTERVENTIONS

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Disclosure

- Direct the University of Michigan FAS Diagnostic and Intervention Clinic, funded by the Speckard-Knight Foundation
- I have no personal financial relationships related to this presentation.
- I have signed releases from patients (and their parents) whose pictures are shown during this talk.

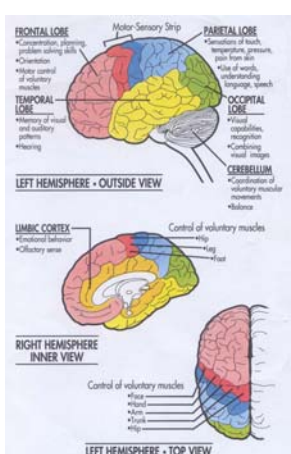
Outline

- FASD - Spectrum of neurodevelopmental disabilities
- Michigan Clinic
- Symptoms described by parents
- Value of accurate & early diagnosis
- Intervention
 - School services
 - Behavioral
 - Pharmaceutical
 - Occupational, physical and speech therapy
 - Mental health services

FASD - Definition

- A spectrum of structural anomalies accompanied by behavioral and neurocognitive disabilities, associated with exposure to alcohol during gestation

- Brain effects
 - Frontal cortex
 - Corpus callosum
 - Cerebellum



University of Michigan Experience

- FASD Diagnostic and Intervention Clinic since 1996
- Multidisciplinary
 - Developmental Pediatrics
 - Neuropsychology
 - Educational psychology
 - Occupational therapy
 - Nursing
 - Parent support

[Michigan Clinic]

- Assessments
- Coordination of medical, school and mental health services
- Including:
 - Attending school planning meetings
 - Recommending intervention
 - Initiation of medication

[Michigan clinic]

- 5% full FAS
- 95% spectrum
- Almost all in foster care or adoption
- Children referred by
 - Social workers
 - Teachers
 - Foster care system

[Case 1]

- H.R. presented with FTT in infancy
- In foster care system
- Diagnosed with FAS
- Early intervention – OT, PT, play group
- Special education services (3 yrs – current)
- Normal cognition
- ADHD

[Case 1 continued]

- Sleep disorder
- Good social skills
- Excellent dancer (ballet)
- Growth and facial features
- Currently doing well in 6th grade

[The spectrum - FASD]

- From mild to severe
 - Cognitive
 - Executive function
 - Social
 - Cerebellar
 - Sensory

[Infancy]

- Poor feeding
- Poor growth
- Sleep difficulties
- Cute
- Vigilant
- Highly active

Toddlers

- Very active
- Sleep difficulties
- Unaware of danger

- Cute
- Talkative

Preschool children

- Speech delay
- Cognitive impairment
- ADHD-Very active
- Sleep problems
- Developmental difference apparent

Elementary school children

- ADHD symptoms
- Difficulty with direction finding
- School problems
- Toileting, enuresis

Middle School Children

- Problems with peers
- Poor judgment (substance abuse, sexual)
- Desire to be accepted leads to unacceptable behavior

High School Youth

- Learning
- Peer problems
- Judgment – decision making
 - substance abuse
 - larceny
 - Inappropriate sexual activity

Cognitive

- IQ \leq 68
 - Microcephaly
 - Full facial features
 - Growth deficiency
- Spectrum
 - Normal IQ - may have other deficits
- Presentation
 - Developmental delay - Speech

Assessment & Intervention

- Developmental testing (birth – 3yrs)
- IQ testing (7 – 9 yrs)
- Special education services based on
 - Cognitive impairment
 - Health impairment

Benefits

- Appropriate expectations
- Reduces blame
- Greater educational success
- Better prediction of developmental trajectory
- Increased protection

Executive function

- Highly active (even from infancy)
- Sleep difficulties
- Is it true ADHD?
- Can inattention, impulsivity and hyperactivity be treated in children with FASD?

Assessment

- Evaluate for ADHD
 - Conners' Rating Scales (parent and teachers)
 - Vanderbilt Forms (parent and teachers)
- Assess for comorbid conditions
 - Autistic features
 - ODD
 - Depression

Treatment

- Multimodal therapy
- Behavioral intervention
 - Developmentally appropriate expectations
 - Regular routine
 - Preparation for transitions
 - Simplify
 - Clear expectations
 - Rewards and consequences

Treatment

- Pharmacotherapy
 - Stimulants
 - Methylphenidate
 - Amphetamine
 - Alpha-agonists (clonidine, guanfacine)
 - Strattera
 - Daytrana

Benefits

- Improved school performance
- Improved self esteem

Social dysfunction

- Overly friendly as young children
- Poor understanding of spatial boundaries
- Often rejected by peers even when very young
- Psychiatric co-morbidities in early teen years

Assessment & Intervention

- Assessment
 - Observation
- Social skills training
- Practice

Benefits

- Improved social acceptance
- Better school adaptation
- Improved family life

Cerebellar dysfunction

- Assessment
 - Neurological examination
- Intervention
 - Physical therapy
 - Adaptive PE

Sensory symptoms

- May be overly sensitive to touch, noise and light
- Occupational therapists can assess
- Interventions include
 - Avoiding overly stimulating situations
 - Desensitization

[Mental health co-morbidity]

- Assessment – CBCL
- Early intervention

[Our intervention model]

- Accurate diagnosis
- Education/demystification
- Behavioral strategies
- Sensory strategies
- Educational Services
- Treatment for ADHD
- Mental health services

[Diagnosis]

- Neuropsychological testing
- Sensory assessment
- Behavioral assessment (CBCL)
- ADHD assessment (Connors')

[Education/demystification]

- FASD is a brain disorder
- Compare to traumatic brain injury
- Child should not be seen as “bad”
- Increases compassion

[Case 2 (18 – year old boy)]

- Evaluated at age 6 when placed with aunt & uncle
- Normal cognition
- Facial and growth features
- Fine motor difficulties
- Social difficulties
- ADD (not hyperactive)

[Case 2 continued]

- Minimal school services
- Extra time for college entrance tests
- Graduating from high school
- Problems with driving (hyper-focused)
- Starting at University in Computer-Assisted Graphics
- Will live at home for first 2 years

Conclusions

- Early identification, evaluation and intervention improves outcomes:
 - Especially among cognitively normal children who are at risk for:
 - Mental illness
 - Incarceration
 - Substance abuse
 - when FAS is a hidden disability