

Positive Behavioral Interventions for People with FASD Across the Lifespan



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Objectives

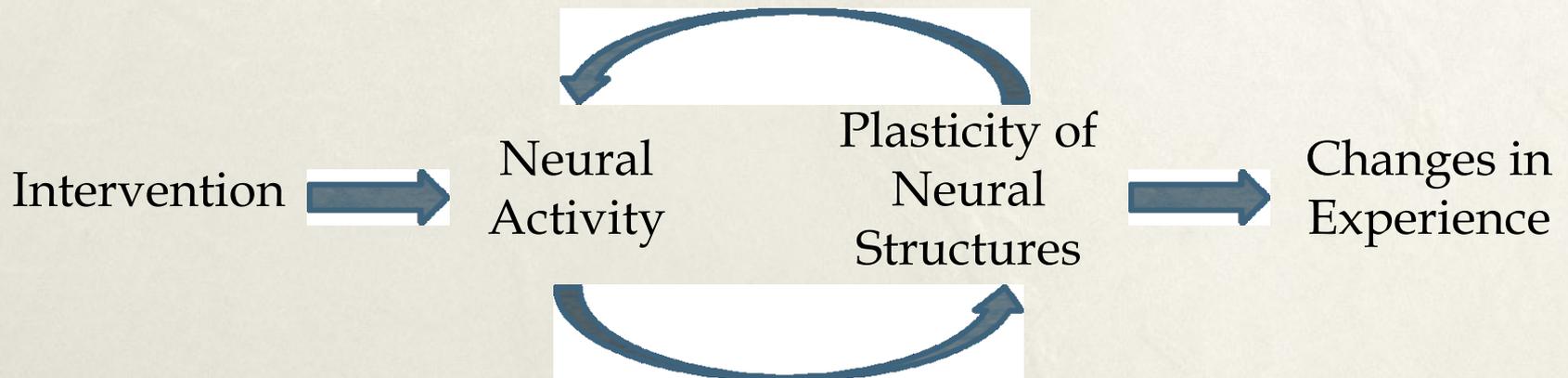
- * **What should interventions look like for people with FASD?**
 - * Theoretical models
 - * Lived Experience model
- * **What scientific evidence do we have for the efficacy of interventions for people with FASD?**
 - * Early childhood
 - * Preschool & school-age children
 - * Adolescents & Adults
- * **What can we do to keep making forward progress to improve the lives of people with FASD?**



What should interventions look like
for people with FASD?

Neurodevelopmental Model

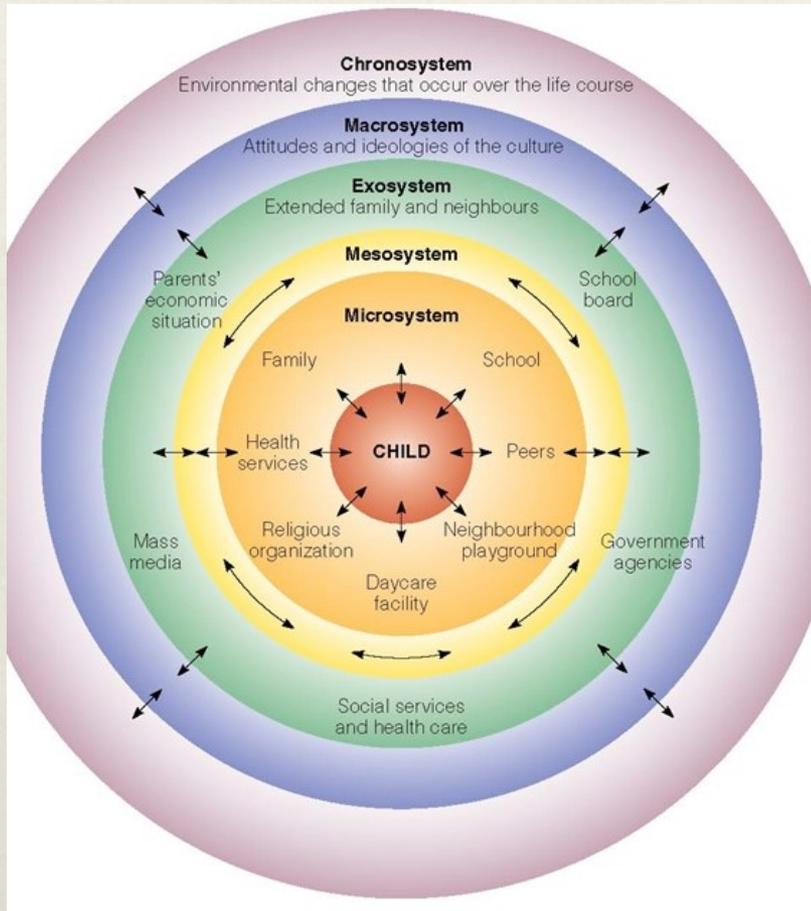
- * Successful intervention = “series of planned and guided experiences that give rise to a chain of reciprocal interactions between neural activities and structures, ultimately leading to improved performance.”



Guidelines for Intervention based on Neurodevelopmental Framework

- * Attend to the person's cognitive and behavioral profile
- * Utilize strategies appropriate for the person's "zone of proximal development"
- * Provide early training in attention and self-regulation
- * Provide enriched input in a guided fashion
- * Combine evidenced-based behavioral and pharmacological interventions

Developmental Family Systems Model



- * Individual characteristics transact with broader ecological context
- * Interventions reduce risk and increase protective factors at various ecological levels
- * Emphasis on family-level factors to promote positive trajectories of people with FASD

Family-Level Risk & Protective Factors in FASD

- * Stable and nurturing home
- * Child-parent attachment and interaction patterns
- * Caregiver cognitive appraisal
- * Parent self-efficacy
- * Parent Stress
- * Family resource needs

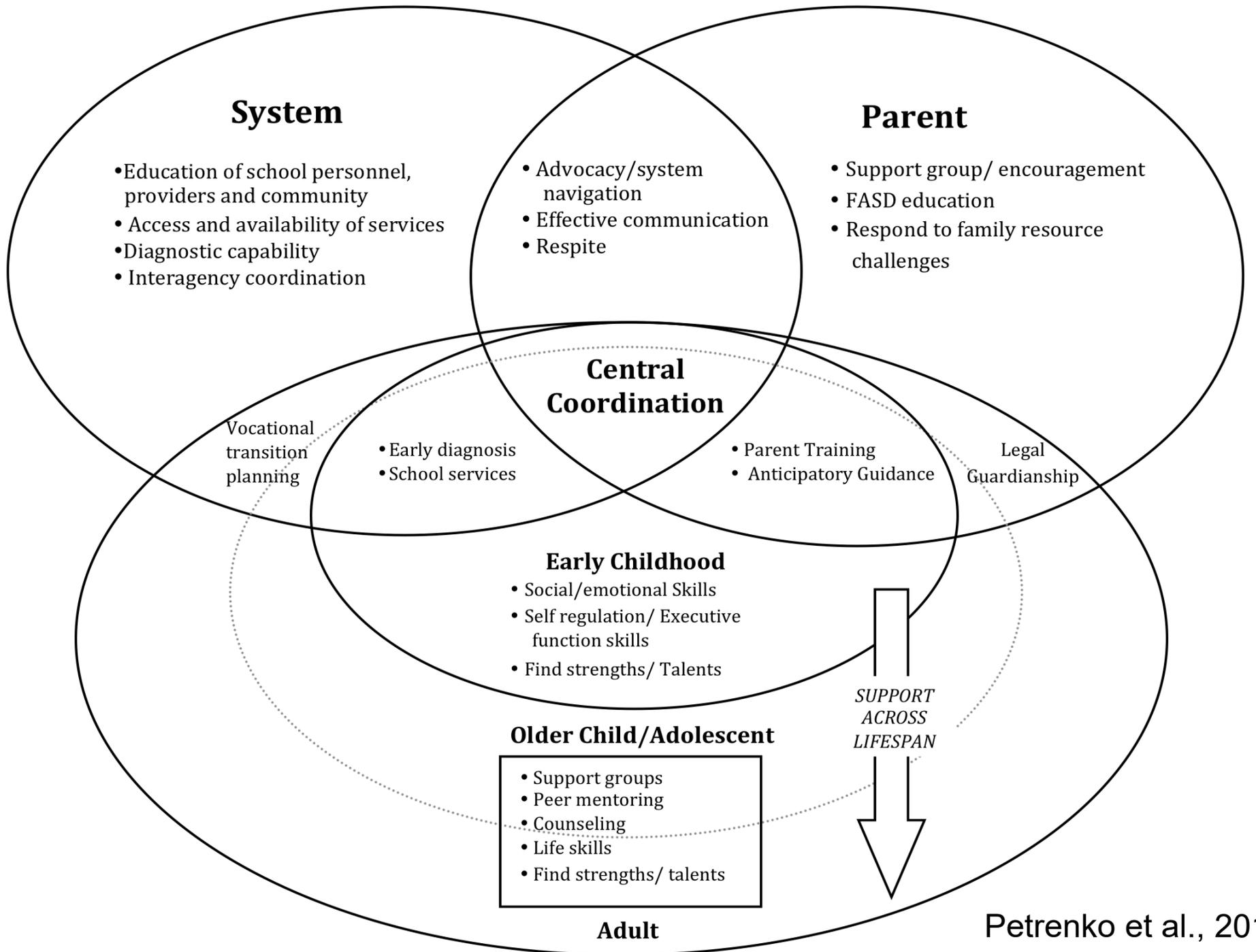


Lived Experience Model of Interventions for FASD

From caregiver and provider perspectives, interventions need to be:

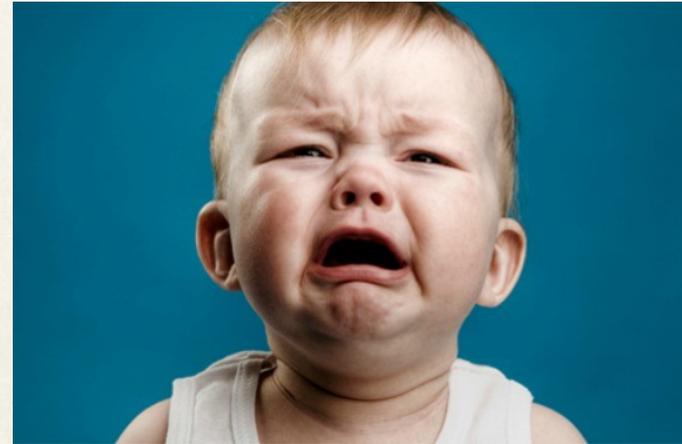
- * Available across the lifespan
- * Proactive/prevention focus
- * Individualized
- * Comprehensive
- * Coordinated across systems and developmental stages





Infancy & Early Childhood

- * Developmental delay, motor problems
- * Disturbed sleep, feeding problems
- * Negative affectivity
- * Higher stress reactivity
- * Problems with self-regulation, difficult to soothe
- * Higher rates of insecure attachment with caregiver
- * Increased risk of feelings of ineffectiveness as a parent



Infancy & Early Childhood Intervention Research

- * **Breaking the Cycle** program (Toronto, Canada)
 - * Focuses on the parent-child relationship
 - * Biological mothers with substance use problems and young children
 - * 1 comparison study relative to standard care in neighboring community (65 BTC vs. 25 SC)
 - * Preliminary data: BTC lead to decreases in maternal substance use, better maternal mental health, increased relationship capacity, and better child outcomes



Preschool & School-age

- * Problems with executive functioning and complex information processing
- * Difficulty learning new information
- * Lower academic achievement, especially math
- * Social information processing and social communication deficits
- * High physiological arousal and poor regulatory capacity
- * High levels of behavior problems and mental health needs
- * Sensory sensitivities
- * Negative parent-child interaction patterns

Parent Training & Support Interventions



- * **Parent Training Workshops** (2 studies; Atlanta, GA USA)
 - * Two, 2 hour workshops or online content for parents
- * **TRIUMPH Through the Challenges of Fetal Alcohol Syndrome** (1 Study; OH, USA)
 - * Six, 2 hour workshops for parents
- * Both include psychoeducation about FASD, information on effective behavior management strategies, and advocacy tools
- * Pre-post data: content is helpful and acceptable to families; improvements in behavior problems and caregiver knowledge

Parent Training & Support Interventions



- * **Coaching Families** (1 study; Alberta, Canada)
 - * Paraprofessional mentoring for the family
 - * Pre-post decrease in needs and caregiver stress; increase in goals met

- * **Parent-Child Interaction Therapy** (1 study; OK, USA)
 - * 14-week intervention focusing on parent-child interactions
 - * Improved pre-post child behavior and parent stress, but high attrition rates and no group differences relative to psychoeducation and support group

- * **Families Moving Forward** (1 study; Seattle, WA USA)
 - * 9-month in-home parent consultation program
 - * Improved parenting self-efficacy, self-care, family needs met, reduced child behavior problems relative to wait-list control

Attention, Self-Regulation, & Meta-Cognition Interventions

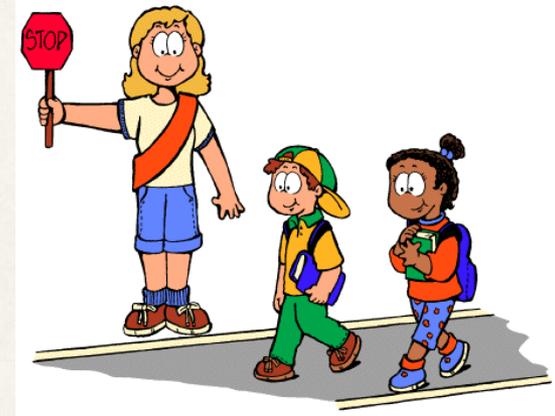
- * **Computerized Progressive Attention Training** (1 study; Victoria, Canada)
 - * 16 hours computerized training with 1:1 coaching
 - * Pre-post improvement in attention, spatial working memory, and reading and math fluency
- * **Cognitive Control Therapy** (1 Study, South Africa)
 - * Weekly, 1hr sessions over 10 month school year
 - * Improved behavior and adaptive behavior relative to controls
- * **Alert Program for Self-Regulation** (1 Study; Toronto, Canada)
 - * 12-week child intervention by trained therapist
 - * Improved inhibition and socio-emotional functioning; changes in brain structure relative to waitlist controls
- * **Parents and Children Together** (1 Study, Chicago, IL USA)
 - * 12-week concurrent child and parent groups
 - * Improvements in parent-reported executive functioning relative to controls



Social & Adaptive Functioning Interventions

- * **Fire and Street Safety Virtual Training**
(1 study; Atlanta, GA USA)

- * Videogame played until mastery (< 30min)
- * Improved knowledge and ability to demonstrate skills in behavioral settings

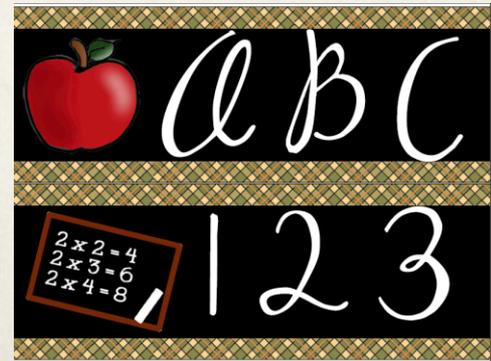


- * **Good Buddies** (2 studies; Los Angeles, CA USA)

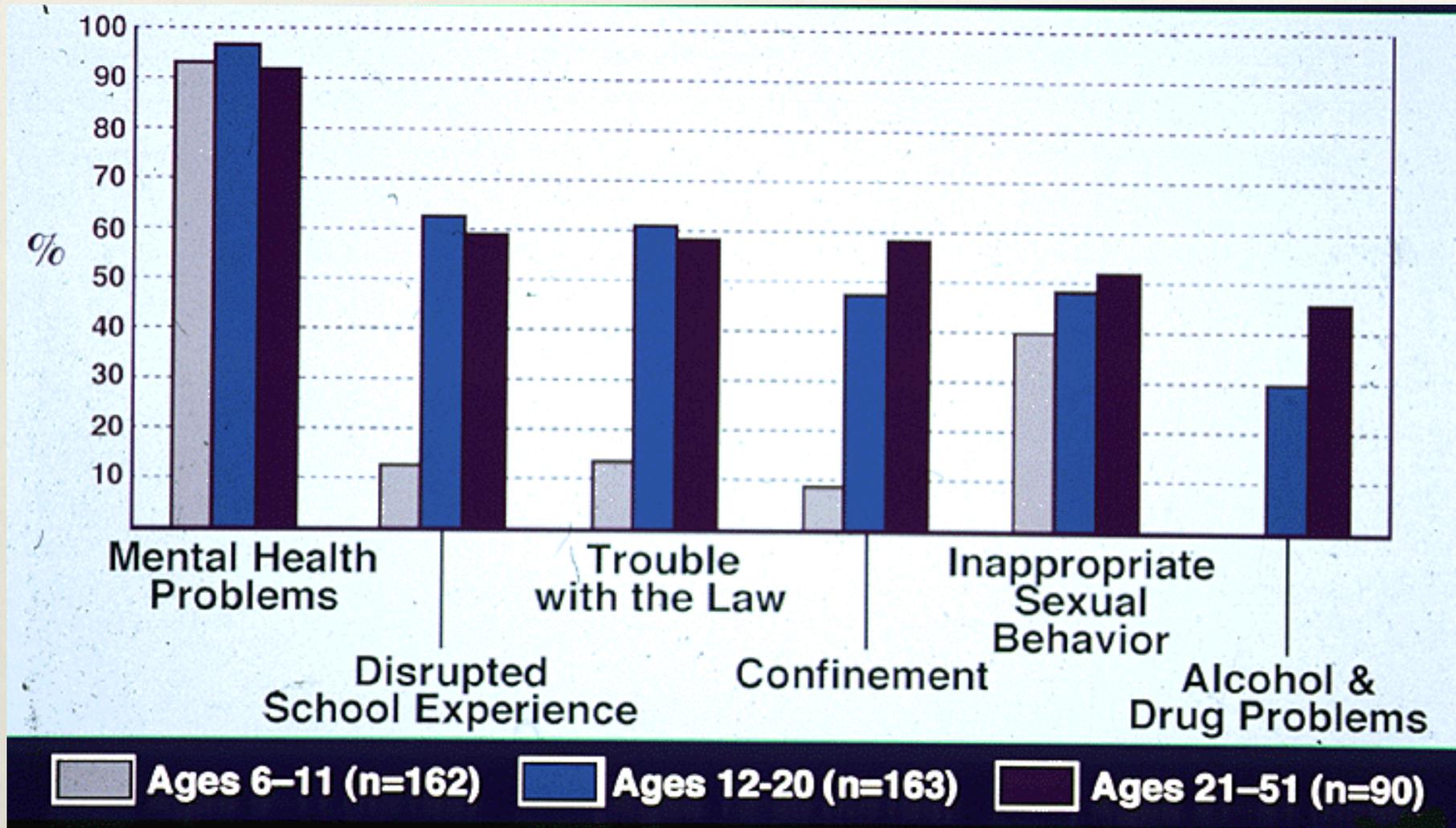
- * 12-week concurrent child and parent groups
- * Focus on friendship skills
- * Improved social skills and fewer behavior problems relative to delayed waitlist group; reduced hostile attribution bias
- * More effective for children with better regulation skills or were taking neuroleptic medications

Academic Achievement Interventions

- * **Language and Literacy Training** (1 Study; South Africa)
 - * Twice a week small group intervention over 9 months
 - * Greater gains in language and early literacy skills relative to controls
- * **Math Interactive Learning Experience** (2 Studies; Atlanta, GA USA)
 - * 6 week child tutoring, parent training, and consultation
 - * Greater gains in math skills, reduced behavior problems



Adolescents & Adults



Interventions for Adolescents & Adults

- * **Project Step-Up** (1 Study; Los Angeles, CA USA)
 - * 6-week concurrent adolescent and parent groups
 - * More likely to cut down or abstain from drinking; less risky drinking patterns
- * **Partners for Success** (1 Study; St. Louis, MO USA)
 - * Family therapy, individual mentoring, caregiver support group
 - * Increases in parent positive coping and reduced self-controlling behaviors; no adolescent changes



Interventions for Parenting Adults with FASD

- * **Parent-Child Assistance Program** (1 study; Seattle, WA USA)
 - * Paraprofessional case management for 3 years
 - * Pre-post reductions in drug and alcohol use, increased utilization of medical and mental health services, use of contraception, stable housing
- * **Step-by-Step Program** (1 Study; Alberta, Canada)
 - * Paraprofessional mentors
 - * Pre-post increase in achieved goals and reduction in needs



What can we do to keep making forward progress to improve the lives of people with FASD?

Areas for Future Scientific Intervention Research

- * Increased attention to interventions for early childhood, adolescence, and adulthood
- * Evaluating trauma and attachment informed interventions
- * Implementation science research – increasing dissemination, uptake, and evaluation of interventions in the community
- * Study ways to improve systems of care for FASD
- * Continue efforts in translating basic research findings into interventions

Bridging Basic & Intervention Research with Systematic Methodologies

TRANSLATIONAL



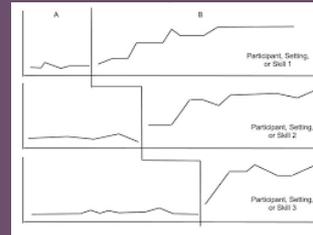
BASIC



QUALITATIVE
METHODS



SINGLE CASE
DESIGNS



INTERVENTION



Summary of Lessons Learned

- * People with FASD benefit from interventions
- * Interventions should be tailored to the neurobehavioral profile of individuals with FASD
 - * Standard interventions are less likely to be effective for people with FASD unless they account for neurobehavioral disabilities
 - * Accurate diagnosis and neuropsychological testing can inform provision of effective interventions
- * Supports for generalization are needed for sustained change
- * Much work is needed to educate the public and providers and increase access to FASD-informed care

Reference:

For further details and citations, see:

Petrenko, C. L. M. (2015). Positive behavioral interventions and family support for fetal alcohol spectrum disorders. *Current Developmental Disorders Reports*, 2, 199-209.

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