Drs Janet McCulloch & Linda Beckett
Kingston Institute of Psychotherapy and Neurofeedback

THE STUDY THAT WASN’T
Fetal Alcohol Spectrum Disorder (FASD)

- FASD is what can occur if the mother drinks alcohol during pregnancy
- Alcohol is one of the most common substances that impact the developing brain
- Prenatal alcohol exposure is the leading preventable cause of birth defects and neurodevelopmental disorders
- There is no known safe amount of alcohol consumption during pregnancy

When you drink alcohol, your unborn child drinks it, too.
ALCOHOL AND PREGNANCY

Some statistics:

- 50% of pregnancies are unplanned
- 80% of women consume alcohol at least occasionally
- The highest rates of drinking for women are between the ages of 19 and 29

- Current prevalence rates of FASD are estimated to be 1% in North America

- In Canada the annual cost per individual with FASD is $21,642, and the overall estimated annual cost for FASD at $5.3 billion
ALCOHOL AND PREGNANCY

- 10% -15% of exposed pregnancies are later found to have a child with a diagnosable FASD
- Exposure is a necessary but not sufficient factor for an adverse outcome
- If the mother continues to drink during subsequent pregnancies, the recurrence rate for FASD may be as high as 75%
- Other risk modifiers are:
  - smoking
  - inadequate nutrition
  - delayed and infrequent prenatal care
  - older maternal age
CNS dysfunction

Verbal and nonverbal learning
- Cognitive flexibility
- Planning and strategy use

Executive function
- Aspects of inhibitory control
- Adaptability

Attention
- Working memory

Sensory processing and motor function
Some Results of the Pilot...
FIRST 5 SESSIONS

- Calm
- Mood
- Motivation
- Sleep
10 Year Old Female

- Score - Sustained Attention
- Score DT - Sustained Attention
- Same World - Attentional Control/witching

Initial
Post NF
+12 Wks
13 Year Old Female

Score - Sustained Attention
Score DT - Sustained Attention
Same World - Attentional Control/ Switching

Initial
Post NF
+12 Wks
9 Year Old Male

Score - Sustained Attention
Score DT - Sustained Attention
Same World - Attentional Control/Switching

Initial
Post NF
+12 Wks
9 Year Old Male

Score - Sustained Attention
Score DT - Sustained Attention
Same World - Attentional Control/Switching

Initial
Post NF
+12 Wks
13 Year Old Female

Trail A

Trail B

Initial
Post NF
+12 Wks
10 Year Old Female

Trail A

Trail B

- Initial
- Post NF
- +12 Wks
9 Year Old Male

Trail A

Trail B

Initial
Post NF
+12 Wks
DASS Anxiety - Parents

Pre NF | 1 Week Post NF | 12 Weeks Post NF

N001  | N002  | N003  | N004
“A lot happier, lots of positive energy, falling asleep quicker”

“Good mood, well behaved, ....helpful”
“hasn't been coming to our room as often in the night ”

“says she is sleeping better - not waking up in the night”
“He plays downstairs with his friends and they are not fighting!”

“There was a sudden increase in his vocabulary, and he’s more co-operative.”
“She was distraught and highly reactive at home. Now home is a more peaceful place, and we have more hope for what her life may look like.”
“back in school for part of each day, and managing emotions much better.”
"Can't you tell I'm doing better?....

When I tell my brain to stop, it can!!"