FASD – Fetal Alcohol Spectrum Disorders

APS Clinical Conference
2nd July 2017

What do you know about FASD?

A Quiz...

What are your experiences working with FASD?

What would you like to know about FASD?
The Hidden Disability

- Largely undiagnosed
- Diffuse brain injury
- Look like "normal" children – most lack facial characteristics
- Behaviour is "abnormal"
- Confusing and complex presentation of issues
- Secondary disability issues are common and as debilitating as the primary disability
- Respond poorly to standard treatment/interventions

A case study

George's foster mother brings him into your private practice for assessment and treatment at the recommendation of the school. His teacher has noted a significant drop in his performance and although his IQ is in the low normal range he is performing poorly in all areas of learning. She has noted that his ability to concentrate and follow instructions is also reduced. She also reports that he has become more disruptive and has increased his outbursts in the classroom.

Dr. Vanessa Spiller

Alcohol in Australia

37.3% of Australians aged 14 years and over consume alcohol on a weekly basis¹.

The age group with the greatest number of Australians who drink daily is 70+ years².

Around 1 in 5 (18.2%) Australians over 14 drink at levels that put them at risk of alcohol-related harm over their lifetime¹.

Around 1 in 6 (15.6%) people aged 12 years or older had consumed 11 or more standard drinks on a single drinking occasion in the past 12 months¹.

1 in 4 women drink alcohol while pregnant, even though the Australian alcohol guidelines have recommend not drinking during this time since 2009.

Dr. Vanessa Spiller

References

Pregnancy in Australia

• Approximately 50% of pregnancies are unplanned
• Pregnancy is often detected after a delay of… 4-6….weeks

Alcohol Consumption during Pregnancy - Australia

<table>
<thead>
<tr>
<th></th>
<th>BEFORE knowledge of pregnancy</th>
<th>AFTER knowledge of pregnancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumed alcohol while pregnant</td>
<td>47.3 %</td>
<td>19.5 %</td>
</tr>
</tbody>
</table>

Factors influencing continuation of alcohol consumption:
- Older and with a higher household income

Factors influencing cessation of alcohol consumption:
- Age - 90% of under 25 yrs old; 50% over 35yrs old stopped drinking

Permanent, brain-based physical disability

• FAS term first identified 1973 (Jones, Smith, Ullenland & Streissguth, 1974)
• Alcohol is a tetrogen (agent which causes birth defects) (Jacobson et al, 1993)
• Leading preventable cause of birth defects, developmental disorders and intellectual disability (American Academy for Pediatrics of Substance Abuse and Committee on Children's Disabilities, 2000)
• Various diagnostic terms and diagnostic guidelines used e.g., FAS, pFAS, ARND, ARBD, Washington 4 Digit Code, Canadian Guidelines, Australian Guidelines
Pre-natal exposure effects brain development in several ways:
- Destroys some cells/stops some cells from forming
- Changes and modifies some cells (e.g., reduces myelination and alters cell functioning)
- Alters connection pathways between existing cells and different parts of the brain

Specific Brain Damage
- Structural brain abnormalities (Riley, Mattson et al., 1995)
  - Smaller corpus collosum (Sowell et al., 2001; Wozniak and Muetzel, 2011)
  - Smaller hippocampi, basal ganglia, globus pallidus, caudate nucleus, putamen, thalamus
  - Damage to cerebellum
- Abnormalities in parietal, frontal, and temporal lobe white and grey matter (Sowell et al., 2002; 2008)
- Smaller whole brain volume (Archibald et al., 2001; Lebel et al., 2008; Roussotte et al., 2012; Sowell et al., 2001)
- Smaller white matter volume (Sowell et al., Wozniak and Muetzel, 2011)
Presentation of FASD varies because...

Factors Impacting

- Dosage
- Timing of exposure
- Pre-natal care
- Maternal stress during pregnancy
- Maternal age
- Nutrition – poor prenatal nutrition
- BMI/size of person
- Genetics e.g., metabolism fast or slow
- Exposure to other substances/tetrogens
- Socio-economic conditions and status
- Environmental enrichment

Additional risk factors

- Ongoing parental substance abuse/misuse
- Parental mental illness
- Exposure to DV/neglect/abuse
- Care experiences - multiple carers
- Attachment issues (Insecure attachment rates between 70 -80% in children with FASD (O’Connor, Kogan., & Findlay, 2002)
Protective Factors

- Early FASD diagnosis
- Stable/nurturing home environment
- Limited exposure to other adverse life events such as multiple care experiences, trauma or abuse

FASD

Currently in the DSM V appendix – Conditions that require further study. Present in the ICD-10

- FASD (Fetal Alcohol Spectrum Disorders) (2016 Australian Guidelines)
  - Evidence of prenatal alcohol exposure
  - Severe impairment in at least 3 or more domains of CNS functioning or structure (at least 2 SD below expected or 3rd percentile or less)

2 sub-categories:

- FASD with three sentinel facial features (replaces previous FAS diagnosis)
- FASD with less than three sentinel facial features

(If three facial features are present but maternal alcohol use is unknown FASD can still be diagnosed provided severe neurodevelopmental impairment is present)
A case study

George's foster mother brings him into your private practice for assessment and treatment at the recommendation of the school. She's got a 12-year-old son, and although the IQ is in the low normal range, he's performing poorly, particularly in mathematics. George is in year 6 and although his IQ is in the low normal range, he is performing poorly, particularly in mathematics. George has been in her care since he was 6 months of age. She doesn't know anything much about his birth mother except that she was a drug user who has not got custody of any of her 3 children due to neglect issues. She doesn't have regular contact with George and his father has never been identified.

His foster mother reports that he was a fussy baby who was difficult to settle and feed. He had repeated ear infections and has had several sets of grommets inserted. He was slow to toilet train but got there by 4 years. He has always been physically small, often the smallest in his class. He is clumsy and had difficulties learning to hold a pencil and write. His language was slow to develop and has been assessed in the past. His receptive language was found to be very poor. His foster mother described him as very talkative though he often repeats himself and talks “nonsense” which gets him into trouble at school. Although he started to read at the expected age, he has slowly fallen behind peers and is currently reading at a year 3 level.

George frequently has difficulties in the classroom. He is disruptive and has difficulties following instructions from teachers. He is frequently sent to the RCS but seems to repeat the same behaviours over and over again despite having reward charts established. He has been suspended multiple times for behaviours such as hitting others, swearing at teachers and setting off the school fire alarm. He is able to clearly explain what he has done wrong but seems unable to stop himself from repeating it. He has been sent to the RCS more times than one would expect for someone with ADHD.

His foster mother reports that she has tried to taper his dose of Ritalin LA as her son seems to be calming down, but he still finds it very difficult to stay on task in the classroom and is constantly distracted and distracting to others. George has some sensory issues and often complains about the seams on his clothing, particularly his socks. This can lead to a full “meltdown” according to his foster mother. These meltdowns can last for up to two hours, during which George usuallyInterestingly, his foster mother has noticed that these meltdowns tend to occur at school, and she has tried different strategies to prevent them, such as providing him with extra support and allowing him to have more breaks.

George has some peers, mostly younger children, however he frequently has difficulties when interacting with others particularly his peers. He often disengages and can be too rough in his play, he tries to join in with jokes but typically goes “too far”.

His foster mother says she understands that he has had a rough time in his early life, but he has been in her care since he was a baby. She has thought that things would improve with age, however, she feels like he is just getting worse. She is an experienced foster carer and has used all the same strategies for him as her other foster kids and her biological kids but they just don’t seem to be working. She doesn’t know what else to do to support him and is worried he is about to be kicked out of school.

Overall Presentation

- Array of symptomology in multiple areas
- Often have pre-existing diagnosis including ADHD, ODD, RAD, ASD, ID, Anxiety etc that don’t quite explain everything
- Confusing patterns of symptoms e.g., inconsistencies in learning or memory
- Responding poorly to treatment
- Not responding to typical behaviour management strategies
- School exclusions and expulsions
- Socially isolated
- Very stressed parents/carers
Prevalence – depends...

- Significant issues with under-reporting, misdiagnosis, lack of diagnosis and different diagnostic criteria
- In schools e.g., US Midwest 2.4 – 4.8% (depending on the study)
- In wider community 0.02% - 0.5%
- In certain communities e.g., Fitzroy Crossing WA 12% (Fitzpatrick et al, 2015)
- In foster care – 30.5 to 52%
- In prison populations 20 – 40%

- Projected estimate for Queensland – 86,000 to 216,000 - (2% - 5%) children (2014) (May et al, 2014)
  - Projected estimate for Australia 462,000 – 1.15 Mil
- Two public diagnostic clinic’s in QLD for 7 to 10 year olds located on Gold Coast and Sunshine Coasts (4 services Australia wide)
- No specific intervention services

May PA et al., 2014;
Source: Gold Coast Diagnostic Team

Cost

- Estimated lifetime cost - **2.4 million** US$ per person with FAS (Popova et al, 2015) or 1.3 million Euro (Streissguth et al., 2004)
- Cost to Canadian economy **9.7 billion $** (40% cost to Criminal Justice, Health Care 21%, Education 17%, Social Services 13%, other 9% (Thanh & Jonsson, 2015)
- Loss of productivity NZ (2014) – $49 – $215 Million NZ + cost to health, education or justice $800 Million (0.36% GDP) (Easton et al., 2016)

Mortality rate is 7.4 to 73.3 times higher than general population depending on age

Causes of Death

- Leading causes of death in general population in Australia
  - Heart Disease (1)
  - Dementia (2)
  - Cerebrovascular diseases (3)
  - Blood and lymph cancer (7)
  - Intentional self harm (14)

- Leading causes of death in FASD
  - Suicide (1)
  - Accident (2)
  - Diseases of Nervous system (3)
  - Diseases of Respiratory system (3)
  - Poisoning by illegal drugs and alcohol
  - Other external causes
  - Congenital malformations, deformations and chromosomal abnormalities

(AIHW, 2016; Buhr & Kronen, 2015)
Diagnosis

Exercise 1

- Outline the various steps you took to get here this morning - what you did and what you resisted doing, what you said, what you resisted saying etc.
- Next to the steps identify the skills/brain areas implicated in doing this e.g., motor skills, memory, attention, cognitive, executive functioning, language, affect regulation, social skills etc.
- Imagine we turned off your frontal lobe/you drank a six pack of beer immediately after getting up. How would that impact on your performance this morning?

Practical Issues with Diagnosis

- 90 – 95% of cases of FASD are either undiagnosed or misdiagnosed
- Currently takes approximately 45 hrs to complete (Gold Standard Assessment)
- No current bio-markers available
- Is a notifiable birth defect in Western Australia and South Australia

(Grasalfi, Wells & King, 2015)
Structural Issues with Diagnosis

- Lack of agreed universal diagnostic criteria
- Multiple systems of diagnosis with different criteria e.g., Washington 4 digit Code, Canadian Guidelines, Australian Guidelines, ICD Codes, lack of DSM code
- Multiple guidelines for diagnosis

A multidisciplinary model in the implementation of FASD prevention, diagnosis and therapy approaches is considered best practice.

Multi-disciplinary Approach

- Pediatrician
  - Assessment of growth
  - Facial features
- Psychologist
  - Cognitive functioning
  - Adaptive functioning
  - Memory
  - Academic Achievement
  - Attention
  - Executive Functioning
  - Affect regulation
- Speech and language therapist
  - Language
  - Academic Achievement
- Occupational therapist
  - Motor
Evidence of PAE

- Self-report from mother, preferably using validated tool e.g., AUDIT-C
- Report by others e.g., relative, partner, community member with direct observation
- Documented evidence from child protection, medical, legal or other records
- Unknown = conflicting evidence or no evidence e.g., overseas adoption

Asking about alcohol consumption
Other Prenatal History

• Medications & drugs - (prescription, over the counter and traditional remedies)?
• Illnesses?
• Trauma?

No blame approach

Neurodevelopmental Domains

1. Brain structure/Neurology
2. Motor skills
3. Cognition
4. Language
5. Academic Achievement
6. Memory
7. Attention
8. Executive Function including impulse control and hyperactivity
9. Affect regulation
10. Adaptive behaviour, social skills or social communication

Testing in all domains is not required but should occur in all areas of concern in order to guide intervention

Severe impairment

• 2 or more standard deviations below the mean
• Less than 3rd percentile (<3rd percentile)
Or
• Large discrepancy between subdomain scores (even if overall score is within 2SD of mean). Discrepancy seen in less than 3% of population.
• Lower of discrepant scores at least 1SD below mean
1. Brain Structure and Neurology

- Occipital head circumference is < 3\textsuperscript{rd} percentile or 2 SD (microencephaly)
- Structural brain issues e.g., reduced brain size, corpus callosum etc, seizure disorder with other causes excluded
- Significant neurological diagnosis otherwise unexplained e.g., CP, visual impairment
- Neuroimaging is not essential but may be helpful

2. Motor skills

- Assessments include:
  - Bruininks-Oseretsky Test of Motor Proficiency (BOT-2)
  - Berry-Buktenica Development Test of Visual-Motor Intergration (VMI)
  - Movement Assessment Battery for Children 2\textsuperscript{nd} Ed (Movement- ABC 2)

3. Cognition

- Composite score below clinical cut-off - full scale IQ < 70 or a major subdomain below clinical cutoff e.g., Verbal Comprehension, PS or significant discrepancy among major subdomain scores
- Assessments include
  - WPPSI-IV
  - Stanford-Binet Intelligence Scales (SB-5)
  - Differential Abilities Scales (DAS-II)
  - Wechsler Non-Verbal Scale of Ability II (WNV-II)
  - WISC-V
  - WIAT-IV
  - Universal Nonverbal Intelligence Test
  - Naglieri Nonverbal Ability Test – 2\textsuperscript{nd} Ed
  - Woodcock Johnson Test of Cognitive Ability
• Only 27% of children with FASD have an intellectual disability.
• Most children with FASD have IQ’s in the normal range.
• Some children with FASD have elevated IQ’s.
• Impairments in functioning are found independent of IQ.

Streissguth et al; 1996; Astley, 2010; Sampson et al, 2000

4. Language

• Assessments:
  – Clinical Evaluation of Language Fundamentals (CELF-4)
  – Pre-School Language Scales, 5th Ed (PLS-5)
  – PPVT and EVT

5. Academic Achievement

• Assessments include:
  – WIAT II
  – Woodcock-Johnson Achievement Test (WJAT-III)
• NAPLAN and school reports can be used as supporting evidence.
• SLD = criteria
6. Memory

- Assessments:
  - Developmental Neuropsychological Assessment (NEPSY-II)
  - Wide Range Assessment of Memory and Learning, 2nd Ed (WRAML-II)
  - Children’s Memory Scale (CMS)

7. Attention

- Assessments:
  - Conner’s Continuous Performance Test 3rd Ed
  - Test of Everyday Attention for Children (Tea-CH)
  - Delis-Kaplan Executive Function System (DKEFS)
  - Developmental Neuropsychological Assessment (NEPSY-II)
  - Children’s Color Trails Test
  - Adult Color Trails Test

- Diagnosis of ADHD = criteria

8. Executive Function (including impulse control and hyperactivity)

- Assessments:
  - Developmental Neuropsychological Assessment (NEPSY-II)
  - Delis-Kaplan Executive Function System (DKEFS)
  - Rey-Osterrieth Complex Figure (ROCF)
  - Behaviour Rating Inventory of Executive Function (BRIEF-II)
  - Comprehensive Executive Function Inventory (CEFI)
  - Frontal Systems Behaviour Scale (FrsBe)
  - Conners 3
  - TOPS 3

- Diagnosis of ADHD ≠ criteria. Additional information is required
9. Affect Regulation

• Assessments:
  – Spence Children’s Anxiety Scales (SCAS)
  – Behaviour Assessment System for Children-III
  – Beck Youth Inventories, 2nd Ed (BYI-II)
  – Children’s Depression Inventory 2 (CDI)
  – Multidimensional Anxiety Scale for Children 2nd Ed
  – CBCL

• Diagnosis of MDD, Persistent DD, Disruptive Mood Dysregulation Disorder, Separation Anxiety Disorder, Selective Mutism, Social Anxiety Disorder, Panic Disorder, Agoraphobia or GAD = criteria

10. Adaptive Behaviour

• Assessments:
  – The Social Language Development Test – Elementary (SLDT-E)
  – The Social Language Development Test – Adolescent (SLDT-A)
  – Vineland Adaptive Behaviour Scales 2nd Ed
  – Adaptive Behaviour Assessment System (ABAS-III)
  – Behaviour Assessment System for Children – 3 (BASC-3)
  – Pragmatic Language Observation Scale (PLOS)
  – Children’s Communication Checklist 2nd Ed
  – Clinical Evaluation of Language Fundamentals (CELF-4 Australian)

• Diagnosis of ASD and Social (Pragmatic) Communication Disorder = criteria

Under 6 years

• Global Developmental Delay = impairment in 3 or more neurodevelopmental domains

• Must be “severe” on standardised assessment e.g., Bayley Scale of Infant Development, Griffiths Mental Development Scales

• Child with microcephaly and 3 sentinel facial feature FASD can be diagnosed with or without confirmed PAE and without severe neurodevelopmental impairment
Sentinel Features

1. Short palpebral fissure – short horizontal length of eye opening
2. Smooth philtrum
3. Thin upper lip

Source: University of Washington

---

Source: Wattendorf & Muenke, 2005
Only app 1/3 of people with FASD have all three sentinel features (due to timing of alcohol exposure)

Children with low alcohol exposure in first trimester still have slightly altered facial features (seen in forehead) even in the absence of other impairments

Muggli et al., 2017

Curved 5th finger (Clinodactyly), upper palmar crease ending between second and third finger "hockey stick" crease

Underdeveloped upper ear parallel to ear crease below "railway track" appearance

Exercise 2

Using the information from the earlier case study, complete a screening document for George.

What additional assessments would you be recommending?
Comorbidity

There are 428 comorbid conditions covering 18 of the 22 ICD chapters

FASD and Mental Health

- Mental health disorders found in 90% of those with FASD (Pei et al., 2011)
  - In 94% of children and adolescents with FASD in child protection system (Chasnoff et al., 2015)
- Externalising disorders - ADHD, ODD, CD
  - ADHD found in 66% (+) of children and adolescence with FASD
- Internalising disorders - anxiety, depression, mood (Pei et al., 2011)
- Multiple mental health diagnosis are common (Chasnoff et al., 2015; Burd et al., 2003)
- Conditions persist and often worsen with age (Steinhausen & Spohr, 1998)
- Mental health diagnosis are common in those with PAE even without a FASD diagnosis (Mattson & Riley, 200; Rasmussen et al., 2013)
Secondary Disabilities

- Mental Health problems
- Disrupted education (e.g., 43% suspension, expulsion or drop out)
- Legal issues (e.g., 62% over age of 12 had trouble with the law)
- Confinement (e.g., 60% confined in mental health, D & A or incarcerated)
- Sexualised behaviours
- Employment issues (80%)
- Issues with independent living
- 2 x more likely to require income assistance
- 10 x more likely to be involved with child protection services (Brownell et al, 2013)

Stress Levels in Parents and Carers

- Study of cortisol levels in parents with adolescents and adults with ASD
- Cortisol patterns similar to those seen in parents of children with cancer, combat soldiers, Holocaust survivors and those with PTSD
- Associated with chronic stress

- Parenting stress in FASD versus ASD parents
  - Similar overall - high parenting stress
    - 95% of FASD carer’s above the 90th percentile
    - 47% of FASD carers above the 90th percentile on Parental Distress
    - FASD parents reported higher rates of pessimism (negative feelings about the children’s future)
    - Significantly higher scores on Parent-Child Dysfunctional Interaction Scale and Difficult Child Subscale
  - FASD parents report issues with getting a diagnosis, issues managing illegal behaviours and issues with inappropriate peers
  - FASD and ASD parents reported being caregivers, advocates, researchers, case managers, educators, therapists, employers, support workers, leaders and students

Seltzer et al., 2010

Watson, Hayes, Coon & Paz, 2013
Intervention

• Outline the various steps you took to get here this morning - what you did and what you resisted doing
• Next to the steps identify the skills/brain areas implicated in doing this e.g., memory, attention, cognitive, executive functioning
• Imagine we turned off your frontal lobe/you drank a six pack of beer immediately after getting up. How would that impact on the above?
• Imagine you could never turn your frontal lobe back on. What kind of assistance would you need to be successful in life?

Interventions

• No specialist intervention services, most current services focus on assessment
• Washington study shows average age of diagnosis is 9.5 years
• Many behavioural and emotional issues, poor school functioning and negative family interactions already established
• Early diagnosis strong predictor of positive outcomes

Olson et al, 2007; Paley & O’Connor, 2015; Streissguth et al, 2004

Exercise 3

• Outline the various steps you took to get here this morning - what you did and what you resisted doing
• Next to the steps identify the skills/brain areas implicated in doing this e.g., memory, attention, cognitive, executive functioning
• Imagine we turned off your frontal lobe/you drank a six pack of beer immediately after getting up. How would that impact on the above?
• Imagine you could never turn your frontal lobe back on. What kind of assistance would you need to be successful in life?
Access to Services

Interventions

• 32 studies – interventions for early intervention, self-regulation and attention, parenting and parent support, math’s skills e.g., MILE, Alert, Moving Families Forward, PCIP etc

In summary

• Does some intervention work better than no intervention for children and early adolescents?
  – Sometimes, in some areas more than others
• What interventions work best compared to each other?
  – No current evidence/we don’t know
• What interventions work for older adolescents? What interventions work for adults?
  – No current evidence/we don’t know
• Do interventions help parents/carer’s?
  – Yes

These interventions are not readily available in Australia
Working with Parents and Educators
(Police, Justice Systems, Child Protection and more)

Parenting kids with FASD is like using a detailed map of Canberra to try and navigate around Brisbane
...paraphrased from Diane Malbin
**Neuro-behavioural approach**

- Brain structure and biology determines behavioural options available to individuals—*what our brain has will determine what our brain can do*
- Behaviour reflects brain structures and possibilities
- Those with FASD (and other brain injuries) exhibit *symptoms* reflecting and consistent with brain damage *not behaviours*
- Strategies for assisting neuro-atypical brains (and individuals) should fit with their brain structure and the possibilities available to them (not just what we know how to do)
- Brain structure can be influenced within limits e.g., neuroplasticity is possible but brain structures can’t be grown

**Key features of Neurobehavioural approach to support**

- Modify the environment
- Modify expectations (our own and others)
- Modify execution of interventions and interactions

**NB approach to Magpies**

- **Environmental Modification** – Avoid the area, wear a hat or umbrella
- **Expectation Modification**
  - Don’t expect the Magpie to change (even with extensive talking therapy with an experienced therapist).
  - Recognise that the Magpie is operating according to its brain structure and the range of possibilities available to it.
  - Avoid labeling the Magpie as willful, oppositional, conduct disordered, bad, naughty, manipulative or violent.
- **Execution Modification** – Dismount and walk (rather than run and scream)
Environmental Accommodations

- Supervise, supervise, supervise
- Supervise and support particularly in the playground and in unstructured environments (suspend age expectations)
- Minimize stimulation in the learning environment and bedrooms
- Provide visual cues and reminders e.g., diaries, posters and scaffolding to use them
- Provide routine, structure and consistency
- Provide clear expectations
- Provide lots of repetition
- Allow for extra time for all tasks
- Provide frequent movement breaks

Modify Expectations to Reflect Brain Wiring

<table>
<thead>
<tr>
<th>Shift from:</th>
<th>To:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional management</td>
<td>Recognizing brain differences</td>
</tr>
<tr>
<td>Applying consequences</td>
<td>Preventing problems</td>
</tr>
<tr>
<td>Changing people</td>
<td>Changing environments</td>
</tr>
</tbody>
</table>

Modify Expectations

- Shift expectations to match developmental age versus chronological age (often around ½ their chronological age)
- Don’t expect learning to generalize across setting. Expect to teach the same skill in each different setting.
- Don’t expect behaviour charts, token systems and conventional reward and punishment systems to work.
- Eliminate homework if necessary
- Leave scaffolding in place and don’t remove supports when improvements have occurred
- Expect to need to be an external frontal lobe
Modify Execution

- Break tasks into simple, discrete steps (no layering)
- Develop routines
- Repeat, repeat, repeat
- Use short, clear and direct instructions
- Above abstractions, analogies and metaphors
- Always use a calm tone
- Check understanding of questions and concepts
- Have an individualized plan for “meltdowns”
- Avoid school exclusions
- Communicate directly with parents/caregivers
- Seek support and consultation
“Children do well if they can”

Dr. Ross Greene - “The Explosive Child”.

Collaborative and Proactive Solutions

What diagnoses might be considered “neuro-atypical”?

- Intellectual disability; FASD; Acquired brain injury
- RAD; Cases of severe abuse and neglect (identifiable brain based changes)
- ASD
- ADHD
- ODD, Conduct disorder
- Frontal lobe functioning heavily implicated; under and over-connected neural networks
Conceptualisations

• Lack skills in flexibility and frustration tolerance (regardless of diagnosis)
• Lacking skills in:
  – Executive functioning (ability to shift cognitive set, organisation and planning, separation of affect)
  – Language processing
  – Emotional regulation
  – Cognitive flexibility
  – Social skills (requires flexibility, complex thinking, rapid processing)
• Often get a limited response to reward and punishment programs
• Behaviours are not the result of “lack of motivation”
• Limited capacity to problem solve


Standard behaviour management beliefs and approach

• Non-compliant children have learned that their inappropriate behaviours e.g., tantrums, swearing etc. can help get them what they want
• Many inappropriate behaviours are planned, intentional and purposeful
• Poor parenting created, maintains and perpetuates these behaviours
• More consistent and structured parenting and consequences will alleviate these behaviours
  – Increase positive reinforcement
  – Clearer parental requests
  – Clear, quick and consistent consequences
  – Encourage use of reward systems based on successful performance
  – Not backing down once in a conflict
• Good outcomes for many YP and families (neuro-typical)

However they do not have the desired effect for many YP...

• Lack of flexibility skills and poor frustration tolerance makes punishment and not getting rewards more frustrating often leading to further problematic behaviours (not less) and can contribute to a cycle of escalating punishment
• Teaching flexibility by being inflexible doesn’t work well
• YP who’s brains are neuro-atypical don’t process information and respond in the same way as others
Collaborative Problem Solving Approach

Three options for dealing with an unmet expectation e.g., not doing homework

• Option A – Imposition of adult will (might work OK on a neurotypical child) (keep using the standard behaviour management strategies)
• Option B – Collaborative Problem Solving: finding a way to resolve the issue in a mutually satisfying way. Becoming a surrogate frontal lobe.
• Option C – Remove the expectation (at least temporarily). This is not the same as “giving in”. Often people will return to issue at a later time.

Identify triggers

• Fatigue
• Hunger
• Poor communication skills
• Lack of understanding
• Lack of memory
• Demands are too complex
• Transition times e.g., going to school, bedtime, getting off Xbox
• Complex social demands
• Situations that require an understanding of unspoken rules or conventions
• Feeling threatened e.g., loud voices, angry facial expressions
• Sensory issues e.g., clothing tags, seams, certain sounds
• Uncertainty

Pro-active Option B – where you have pre-empted a behavioural trigger

• Empathy (+ reassurance) – calms, validates, use of reflective listening (cautiously with adolescents). Offer no solutions.
• Define the problem – what is the YP’s concern and the adults concern (if there is only one concern, the parents, you are using Option A; if there is only one concern, the YP’s, you are using Option C). No solutions (or you’ve moved to Option A or C).
• Invitation – brainstorm potential solutions. It is not a sneaky Option A. Solution is not pre-determined. Must be realistic and doable.
Reactive Option B

• Like Pro-active Plan B but when the trigger has surprised you!
• Requires you to think more quickly and suppress your first emotional reaction which is typically to go straight to Option A

Key issues with Option B

• Identify known triggers
• Start problem-solving even before emotional escalation has started
• Don’t use Option B out of desperation or as a last resort – you may have left it too late
• Its ok to take a break during Option B (especially in reactive Option B)
• Explosions take longer than Option B

• Option B is teaching problem-solving skills. Option A is teaching blind obedience. Option B is a “real” life skill.
• It OK to use Option A in life-threatening safety situations e.g., YP is about to run into traffic but try and return to a pro-active Option B to decrease the chances of it happening again. It is also OK to use Option C at times when it is not a safety issue and return to Option B later as well.
Skills required to do Plan B

1. Ability to identify and articulate concerns
   • Take educated guesses and offer them up
   • Offer suitable words or descriptions and offer them
   • Teach them suitable phrases to use

2. Ability to consider a range of solutions
   • Ask for help
   • Meet half-way
   • Try something new

3. Ability to evaluate solutions and possible outcomes and how satisfying they might be to both people
   • Articulate the possible outcomes

Additional skills

• Emotional literacy
• Increase emotion regulation skills e.g., if anxious, angry etc.
• Cognitive flexibility skills (steps of Plan B)
• Social skills e.g., interpreting social cues, having ways of responding, identifying what their behaviour conveys and how it effects others
Research on CPS

- http://www.livesinthebalance.org/research

Questions

Useful Links

National Organisation for Fetal Alcohol Syndrome Disorders – NOFASD
http://www.nofasd.org.au (Australia) or USA http://www.nofas.org

Russell Family Fetal Alcohol Disorders Association – rffada - http://www.rffada.org
http://www.usd.edu/medical-school/center-for-disabilities/upload/faseducationalstrategies.pdf
https://knowfasd-webpro.ualberta.ca/