Medical Behavioural Assessment and Treatment of Children and Youth with Developmental Disabilities (DD) and Behaviours that Challenge: Framework and Tools for Inter-professional Collaboration

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Surrey Place Centre
Objectives of the Workshop

1. Summarize evidence based assessment & tx of behaviours that challenge

2. Describe inter-professional collaboration and pathways of care

3. Demonstrate key practices for collaborative functioning
Ice Breaker: The Fun of Connecting

Talent wins games,

but teamwork and intelligence wins championships

– Michael Jordan
Inter-professional Collaboration (IPC)

● Why Collaboration?
  – Evidence supports:
    • Improved patient/client
      – Outcomes
      – Safety
      – Satisfaction
    • Enhanced System efficiency
      – Cost
      – access, wait times
      – co-ordination of care
    • For Health care professionals
      – Increased professional satisfaction
      – Improved attitudes between and among professions

● Synergy
IPC: Collaborative Practice

● Collaborative Patient Centred Practice
  – “Designed to promote the **active participation** of each discipline in patient care. It **enhances patient and family centred goals** and values, provides mechanisms for **continuous communication** among caregivers, and optimizes staff participation in clinical decision making within and across disciplines, fostering respect for disciplinary contributions of all professionals” *Health Canada 2001*

● Relationship Centred Practice
  – Importance of **interaction among people** as the foundation of any therapeutic or healing activity
  – **Relationships** are
    • **Critical to the care** provided
    • A source of **satisfaction and positive outcomes** for patients and practitioners

  Pew-Fetzer Task Force, 2000

● Tool – Reflection
  – Impact of actions and reactions
IPC - Team Performance

● Real Team:
  – equally committed to a common purpose, goal, and working approach for which they hold themselves mutually accountable

● High Performance Team
  – Meets conditions of a “Real Team” AND
  – Has members who are deeply committed to one another’s personal growth and success
  – Significantly out performs all other teams

Katzenbach & Smith
Defining “Challenging Behaviour”

- Culturally abnormal behaviour(s) of such an intensity, frequency or duration that the physical safety of the person or others is likely to be placed in serious jeopardy, or behaviour which is likely to seriously limit use of, or result in the person being denied access to, ordinary community facilities (Emerson, 1995).
Behaviours that Challenge Lead to:

- Exclusion from community settings
- Staff burn out
- Abuse / punitive / restrictive practices
- Decreased Quality of Life
- Hospitalization
- Financial burden

Hassiotis et al., 2014: McQuire et al., 2015
Psychotropic Meds and Challenging Behaviour

- Individuals with ID among the most medicated (Bradley & Summer, 1999)

- Concerns regarding the use of psychotropic medication to treat challenging behaviour (Chapman et al., 2006)

- Severe side effects (Unwin & Deb, 2011)
  - Chlopromazine, adverse effects on learning performance (Aman, 1984)
  - Anticholinergic effects (blurred vision, constipation, dry mouth, urinary hesitance), extrapyramidal symptoms (restlessness), sedative effects, tardive dyskinesia and dermatologic reactions (Wehmeyer et al, 1990)

- Meta-analysis, McQuire et al. 2015
  - Antipsychotics → short term reduction of behaviours
  - Lack of evidence regarding long term effectiveness
Psychotropic Meds and Challenging Behaviour

- Prescribed for behaviours that challenge vs. diagnosed mental health disorder (Holder & Gitlesen, 2011)
  - 54% of those prescribed psychotropic medication had a psychiatric diagnosis
  - only 31.3% prescribed an antidepressant had depression.
  - 53% of individuals were prescribed psychotropic medications due to a behavioural problem

- Individuals with challenging behaviour are 2x more likely to have a prescription for antipsychotics compared to individuals without a history of challenging behaviour.
  - reasons for the treatment with antipsychotic medications include behaviour problems, agitation, aggression, anxiety, verbal aggression, self injurious behaviour, institutional behaviour, schizoid like outbursts, etc. (Fleming et al., 1996)

Rahim, 2013; Sheehan et al., 2015;
Psychotropic Medications and Prescribing Practices

- Supervised by an experienced consulting Medical Practitioner
  - Wehmeyer & Patton, 1990 – a factor in the prescription of medication is the shortage of physicians trained with an expertise in DD.

- Reviewed by an interdisciplinary team

- Effort to implement a behavioural based program to decrease challenging behaviours as opposed to only changing or reviewing the medication when prompted by a significant change in behaviours or the appearance of side effects (Fleming et al., 1996).

Rahim, 2013
Shifting from a Paradigm of Acute Physical Illness to Behaviour

● Shift in pediatrics from physical illness to nonmedical concerns or children’s behavioural adjustment, which is a major focus of Behaviour Analysts (Allen et al, 1993)

● Common goals between both professions
  – Compliance
  – Sleep
  – Feeding problems
  – Toileting
  – Behaviour management
  – Academic performance
IPE 101: What is a BCBA?

- While there are many professions that make recommendations for behaviour problems, Board Certified Behaviour Analysts are trained in the science of ABA.

- “ABA is a systematic approach for influencing socially important behavior through the identification of reliably related environmental variables and the production of behavior change techniques that make use of those findings”. [http://bacb.com/](http://bacb.com/)

- Practitioners of behavior analysis provide services consistent with the dimensions of ABA.
  - conducting behavioral assessments,
  - analyzing data, writing and
  - revising behavior-analytic treatment plans,
  - training others to implement components of treatment plans, and
  - overseeing the implementation of treatment plans.
  - services to clients with a variety of needs, including improvements in organizational functioning (e.g., staff performance, management and pay structure interventions),
  - skill deficits (e.g., communication, adaptive behavior), and
  - **problem behavior (e.g., aggression, self-injurious behavior)**
Behaviour Analytic Contributions

- Effective in treating medical /psychiatric behaviours that challenge
  - Bizarre speech (Mace & Lalli, 1991)
  - Anti-social behaviour (Serketich & Dumas, 1996)
  - Chronic tic disorders (Himle et al., 2006)
  - Drug addiction / Cocaine and heroine absentism (Ghitza et al., 2008)
  - Life threatening rumination (Sajway et al., 1974)
  - Encorpresis (Ross et al., 1998)
  - Medication compliance (Epstein et al., 1978)
  - Trichotillomania (Falkenstein et al., 2016; Friman, 1985)
  - Pediatric obsessive compulsive disorder (Abramowitz et al., 2005)
The Need for Behavioural-Medical Collaboration

Cost effectiveness

- CBT + Fluoxetine (Antonuccio et al., 1997)

Enhanced clinical Care

- Biobehavioural therapy – amplify effects of pharmacotherapy Liberman et al., 1994
- Risperidone + parent training more effective than medication alone, Scahill et al., 2012
- Evaluating the role of physical, operant, cognitive and affective factors in chronic pain patients Turtk & Okifuij, 1997
The Inception of a Behavioural Medical Clinic

Improving the effective use of psychotropic medications among individuals with DD

Behaviour-analytic contributions to the field of medicine

Access to a strong, highly specialized clinical team
The BMACKE Clinic

Behavioural Medical Assessment Complex Kids & their Environment (BMACKE) Clinic

Admission criteria:

1. Active or suspected medical issues that could be contributing to the behavioural concern
2. Presence of significant behavioural concerns resulting in a priority referral
BMACKE Continued

BMACKE clinic (BCBA and Developmental Pediatrician)

Inter-professional services consult as needed – Serv Co-ord, OT, Psychiatry, Psychology

Community Services, agency BT’s, community medical practioners, group home
BMACKE Continued

- Minshawi et al 2015, JADD
Lit Review: Medical Assessment

- (NICE – 24,#25, p. 168)

- Written Statement (Formulation) (NICE - #26, p. 168)
- Initial behaviour Support Plan (NICE - #33, p, 171)
Lit Review: Medical Assessment

- Assess Risk regularly (NICE - #27)
  - Suicidal ideation, self harm, harm to others
  - Self neglect, or neglect/abuse by others
  - Breakdown of family or residential support
  - Rapid escalation of behaviour that challenges
  - Address risk issues in Behaviour Support Plan
Medical Assessment of Behaviour that Challenges

Fig. 1 Algorithm for assessment of SIB. *SIB* self-injurious behavior, *ASD* autism spectrum disorder, *ID* intellectual disability
Functional Behaviour Assessment

- Indirect Observation
  - Indirect Assessment
    - Structured Interview
    - Questionnaire
    - Rating Scale
  - Checklist
  - ABC Narrative Recording
  - Scatter Plot

- Direct Observation
  - Descriptive Assessment
  - ABC Continuous Recording

- Functional Experimental Analysis
  - Contingent Escape
  - Contingent Attention
  - Control Condition
  - Alone

Lisa Dillon
Appliedbehavioranalysis.com
Assessment and Intervention

1. Complete FBA to identify behavioral function of SIB
2. Formulate appropriate behavioral intervention(s) based on results of FBA
3. Present behavioral plan and provide behavioral training to caregiver/providers in all environments where SIB is present
4. Ensure ongoing communication between caregivers and treatment team as behaviors may change over time, and strategies may need to be adjusted

Treatment team should determine severity of SIB and use personal protective equipment or medication (prn) as necessary to ensure patient safety

1. If SIB consistently much or very much improved, continue maintenance behavioral treatment
2. If SIB minimally improved, continue behavioral treatment and proceed to pharmacological treatment
3. If SIB unchanged or worse, discontinue behavioral treatment and proceed to pharmacological treatment
Intervention

Is patient currently on psychotropic medications?

Yes

Evaluate effectiveness and tolerability of each medication. Consider reduction/discontinuation of medications that appear to be worsening behavior or are ineffective.

SIB still present

No

Evaluate for co-morbid psychiatric disorders

Evaluate for co-morbid psychiatric disorders
Intervention

Presence of:
- anxiety disorder, OCD, “compulsive” SIB, or depression

If SIB has not improved with behavioral treatment and no medical or psychiatric disorder is present, consider trial of risperidone or aripiprazole (FDA-approved for irritability, including SIB in autistic disorder)

No co-morbid psychiatric disorder

- Trial of low-dose SSRI

- Trial of benzodiazepine, ECT or clozapine

- Trial of appropriate atypical antipsychotic +/- mood stabilizer

- Trial of atypical or typical antipsychotic

Catatonia

Bipolar disorder

Psychotic disorder

Our Values
Collaboration - Accountability - Innovation - Respect - Responsiveness
COLLABORATIVE PRACTICE

Formulate appropriate behavioral intervention(s) based on results of FBA

Present behavioral plan and provide behavioral training to caregiver/providers in all environments where SIB is present

Evaluate effectiveness and tolerability of each medication. Consider reduction/discontinuation of medications that appear to be worsening behavior or are ineffective

Evaluate for co-morbid psychiatric disorders

Ensure ongoing communication between caregivers and treatment team as behaviors may change over time, and strategies may need to be adjusted

Treatment team should determine severity of SIB and use personal protective equipment or medication (pm) as necessary to ensure patient safety

If SIB consistently much or very much improved, continue maintenance behavioral treatment

If SIB minimally improved, continue behavioral treatment and proceed to pharmacological treatment

Trial of low-dose SSRI

Trial of benzodiazepine, ECT or clozapine

Trial of appropriate atypical antipsychotic +/- mood stabilizer

Trial of atypical or typical

Presence of:
- anxiety disorder, OCD, “compulsive” SIB, or depression
- bipolar disorder

If SIB has not improved with behavioral treatment and no medical or psychiatric disorder is present, consider trial of risperidone or aripiprazole (FDA-approved for irritability, including SIB in autistic disorder)
BMACE Referrals

- Example: Individuals with autism or DD, no Psychiatric dx, need 2+ staff ratio at school; in and out of community based programs; a long history of polypharmacy→ Clinic would manage psychototropic medication and conduct an FBA

- Example: Prader willi Syndrome-
  - medical assessment of vaginal itching, anxiety, skin picking
  - Behaviour assessment of refusal, flopping, fecal smearing, disrobing
  - Clinic→ support each other in assessing anxiety and skin picking

- Example: Individual who is pulling out tracheostomy tube. BCBA needs support connecting with the medical community to understand trach, needs medical clearance for Functional analogue. However no medical assessment is needed. Regarding the etiology of referring behaviour

  - Psychotropic medication
    - + operant
  - Medical
    - + operant
    - cross over
  - Operant
    - + non associated medical concern
  - Medically Complex where etiology is unknown

Our Values
Collaboration - Accountability - Innovation - Respect - Responsiveness
BMACKE CLINIC: COMPLEXITY RATING TOOL

- Needed help with triage process to decide if client was complex enough for the interdisciplinary clinic
- Also to decide which professionals to involve in the assessment (IPC)
  - Consulted with each profession in our community about their criteria for priority
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<thead>
<tr>
<th>DOMAINS</th>
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<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<tr>
<td>No Symptoms in Domain</td>
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<td><strong>Symptom(s) present</strong></td>
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<tr>
<td>Managed well by Primary Level (MD, Caregivers, School)</td>
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<td><strong>Symptom(s) challenging to diagnose and manage, requiring an experienced clinician</strong></td>
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<tr>
<td><strong>Multiple Symptoms in a domain requiring expert clinician(s) to assess and manage</strong></td>
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<tr>
<td><strong>Crisis Level; requiring most intensive assessment &amp; management Severe impairment &amp; impact on client/family or environment</strong></td>
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<tr>
<td><strong>A</strong> Behaviour</td>
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<tr>
<td>Absence of problematic behaviours that cause harm to self or others.</td>
<td>Presence of problematic behaviours, however ASD team involved and/or other behavioural consultant/teams are able to manage.</td>
<td>Problematic behaviours occurring more often and/or for longer durations and/or increasing in intensity which are challenging to manage. Replacing the behaviours may lead to more positive attention/independence. Referral for functional behaviour assessment/consultation and intervention. to determine the function, enabling teaching others to teach a replacement behaviour</td>
<td>Severe problematic behaviours occurring frequently and/or for a long duration of time and/or are increasing in intensity, may be caused by complicating medical or mental health issues, or result in marks/bruises/pain to self or others, both of which require collaboration with other health care providers. Functional behaviour assessment/consultation to determine the function, enabling teaching others to teach a replacement behaviour.</td>
<td>Extremely severe problematic behaviours occurring at a high frequency, duration and/or intensity resulting in imminent risk to self/others which require collaboration with and referrals made to specialist health care providers, clinicians, and caregivers to assess and treat medical + behavioural issues. May require inpatient admission.</td>
<td>BCBA would support admission and provide behaviour assessment /consultation to determine the function, enabling a decrease in behaviours while teaching others to teach replacement behaviours.</td>
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<tr>
<td><strong>B</strong> Mental health</td>
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<tr>
<td>No action required</td>
<td>Well managed no action required</td>
<td>Referral for nursing assessment to gather relevant history and data may need one time consult with psychiatrist at SPC</td>
<td>Mental health has deteriorated and/or lengthy period of unsuccessful treatment and/or multiple co-morbidities that may be related to mental status changes. Needs to have review of plans and medications- nursing would collect all the data and past history and especially medication history</td>
<td>Determine if there is a need for an immediate admission- nursing would advocate with information to support admission and provide DD consultation</td>
<td></td>
</tr>
<tr>
<td><strong>Physical health</strong></td>
<td>Healthy, has primary care MD, annual checkups, Well managed by Primary MD</td>
<td>Symptom well defined and diagnosed, Primary Care MD able to manage and treat</td>
<td>Symptoms of pain or discomfort, no clear dx, requires experienced MD to assess (community vs SPC MD)</td>
<td>Multiple comorbid conditions requiring multiple specialties but can be managed as an outpatient (Sz, GI, Vision, DM)</td>
<td>Urgent multiple health issues contributing to severe impairment in function or injury; requiring co-ordinated inpatient specialized assessments and treatments. Advocate with information to support admission and provide DD consultation</td>
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<tr>
<td><strong>Environmental</strong></td>
<td>Adequate supports, successful attendance at programs</td>
<td>Environmental issues well defined, implementation of environmental adjustments and supports have increased stability</td>
<td>Environmental issues not well defined, adjustments unsuccessful, requires assessment/consultation from BCBA, OT, service co-ordination, individual counselling</td>
<td>Environmental and/or support issues are among multiple issues that are increasing instability and risk, requiring multi-professional consideration</td>
<td>Environment is unable to sustain individual due to high risk, burn out of supports. Includes requiring urgent respite or intense individual and family therapy</td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td>No communication concerns</td>
<td>Communication needs managed by community SLP either through school or private.</td>
<td>Normal reason for referral to SLP not priority</td>
<td>Priority if BT has assessed and determined behaviours are driven by lack of communication skills or equipment</td>
<td>Crisis intervention is done alongside BT only if BT has determined it is a crisis. SLP routinely does not have crisis services</td>
</tr>
</tbody>
</table>
### Psychological:
- **Functioning level and needs well understood, recent / valid psychological report available**
- **Some clarification needed to confirm functioning level and needs, generally stable with occasional concerns.**
- **Confusion re functioning levels, support needs and differential diagnosis (i.e. IQ-ASD-psychosis) Increased behavioural difficulties observed in certain environment with certain people**
- **Escalation of behavioural difficulties (i.e., aggression, withdrawal, catatonia etc.) in multiple environments with multiple people, complicated by low IQ, lack of verbal communication skill and limited external resources or evidence of sudden and rapid decline in overall functioning level**
- **Difficulties in #3 observed constantly across all environments with all people**

### Sensory
- **No fine motor, gross motor or sensory or self-care needs**
- **Fine motor, gross motor sensory needs and/or self-care needs are well managed by community OT (school or private)**
- **Sensory needs are not well defined. More intensive home based support is required**
- **BT assessment completed and has determined that function of behaviour is likely sensory; home based support is required**
- **Crisis level behaviour as determined by BT. Assessment and intervention needed collaboration with BT and team.**

### Hearing
- **Stable - history of normal hearing**
- **If there is a concern then there is no time limit for recheck If no concern then can be follow up testing in one year**
- **Requires assessment due to active infection of the ears recently observed, concerns regarding changes in hearing and/or balance**
- **Same as Domain 2 if there is a concern then testing would take place**
- **Crisis would be sudden hearing loss**

### Overall Response to previous treatment
- **No previous treatment**
- **Has received some treatment and issue resolved at the time**
- **Some treatment and issue(s) not resolved**
- **Multiple treatments and issue(s) not resolved**
- **Chronic recurring issues despite receiving specialized treatments**
### BMACKE Clinic: Outcome Tools

**Brief Family Distress Scale**
Jonathan Weiss, Ph.D., & Yona Lunsky, Ph.D.

On a scale of 1 to 10, please rate where you and your family currently are right now, in terms of crisis by picking one of the following statements:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Everything is fine, my family and I are not in crisis at all</td>
</tr>
<tr>
<td>2</td>
<td>Everything is fine, but sometimes we have our difficulties</td>
</tr>
<tr>
<td>3</td>
<td>Things are sometimes stressful, but we can deal with problems if they arise</td>
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<tr>
<td>4</td>
<td>Things are often stressful, but we are managing to deal with problems when they arise</td>
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<tr>
<td>5</td>
<td>Things are very stressful, but we are getting by with a lot of effort</td>
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<tr>
<td>6</td>
<td>We have to work extremely hard every moment of every day to avoid having a crisis</td>
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<tr>
<td>7</td>
<td>We won’t be able to handle things soon. If one more thing goes wrong – we will be in crisis</td>
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<tr>
<td>8</td>
<td>We are currently in crisis, but are dealing with it ourselves</td>
</tr>
<tr>
<td>9</td>
<td>We are currently in crisis, and have asked for help from crisis services (Emergency room, hospital, community crisis supports)</td>
</tr>
<tr>
<td>10</td>
<td>We are currently in crisis, and it could not get any worse</td>
</tr>
</tbody>
</table>

© Weiss & Lunsky
**BMACEK Clinic: Outcome Tools**

General Change Questionnaire - BMACEK

Parent

CB#: __________________________ Relationship to client: __________________________ Date: __/__/__

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**The BMACEK clinic was recommended for the following concerns:**

Please describe each concern in the spaces below.

<table>
<thead>
<tr>
<th>Concern 1:</th>
<th>How big is this? Circle ONE number for each concern.</th>
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<tbody>
<tr>
<td>Primary Concern:</td>
<td>Very Small</td>
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<th>Concern 2:</th>
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<td>Very Small</td>
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<tr>
<th>Concern 3:</th>
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<td>Very Small</td>
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<th>Concern 4:</th>
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<td>Very Small</td>
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</table>
Case #1: PW- Prader Willi Syndrome

Operant → disrobing, fecal smearing, aggression, refusal, property destruction,

Medical → anxiety, sleep, skin picking

Medical + operant cross over
**Case #1: Prader Willi Syndrome**

**MEDICATIONS:**
- Celexa 20 mg, stopped for more than 1 month ago
- Growth hormone, Nutropin 2.1 mg,
- Steroid cream for vaginal and rectal itching
  (N-acetylcysteine – 900 mg, twice a day, for skin picking for 1 month

Derby et al, 1994- separate typographies as they may have separate functions
- Hand written visual schedule
- Duration of times associated for each activity
- Verbal reminders for socially appropriate behaviours
- Using her humour to motivate her
- Music playing in the background
- PWS training for staff
- Contingency mapping
- Location change in school
- Plan food breaks into visual schedule
- 2:1 staffing
- Reduce food stimuli
- NCR – non contingent reinforcement
- Reinforcement menu
Brown & Mirenda, 2006 - contingency mapping is more effective than verbal instruction alone for individuals with autism – generalized this tool to our patient with PWS – Functional equivalence training

I can raise my hand → And ask for a break → Then I can take a break in the bean bag chair

I’m working with the teacher

I run away → And don’t ask for a break → I don’t get the bean bag chair

Graphics by www.autismclassroomnews.com
Noncontingent Reinforcement + Reinforcement menu

Moore et al., 2016 report on the effectiveness of noncontingent reinforcement and reinforcement menu’s.
Behavioural Interventions for PW

Skill building strategies

- 5-point scale for emotional regulation
- Social autopsies
- Choice making - writing a note to friends or administration if they are not available to meet
# 5-point Scale

<table>
<thead>
<tr>
<th>Rating</th>
<th>Looks Like</th>
<th>Feels Like</th>
<th>I can try to</th>
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<tbody>
<tr>
<td>5</td>
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Buron & Curtis, 2003
Behavioural Interventions for PW

Consequence strategies

● If perseverating – verbal redirect to visual schedule / monthly schedule and then back to the task at hand

● Token system – token every half hour for the non occurrence of smearing and picking, stripping behaviours (Kazdin, 1982)

● Self management strategies – individual with PSW delivers her own tokens upon teacher approval
PW improves after Treatment
Aggregate of All Behaviours

[Graph showing a decline in the percentage of occurrence from baseline to treatment]
Tip about this Intervention

- High risk level of the behaviours
  - Rapid functional assessment completed
  - needed to remove the patient quickly and provide intervention
  - Provided positive behavior support to the classroom and successful implementation because of support from all stakeholders at school
    - Behaviour plan well supported by school administrators and principal
    - Sugai et al., 2000
Case# 2: AC

Operant behaviour → aggression, property destruction, rigid behaviours, stereotypy

Medical → long history of polypharmacy. Behaviour reduction difficult without medication stabilization, rigidity, impulsivity,
Video-JP
Severe Aggression and Compulsions

- Medication management to decrease strength of compulsions and subsequent aggression
  - From age 5-10 years, 3 doctors, 10 meds
    - **SSRI**: Fluoxetine, Fluvoxamine, Citalopram
    - **Benzodiazepine**: Lorazepam, Clonazepam
    - **Atypical**: Risperidone, Aripiprazole
    - **Mood Stabilizer**: Gabapentin
    - **Alpha agonist**: Clonidine, Propranolol
  - Since 2015, switched to Olanzapine; started Sertraline; consultation with DD psychiatrist

- BCBA Therapists from 4 settings:
  - Specialized school (teacher), group home, family home and BMACKE clinic
- Uses isolation room in school; At group home, restraint and PRN Medication used
Common Goal: Decreasing Aggression

- Medical
  - Medication #11 & #12 with some improvement
  - Psychiatry and Developmental Paediatrics
  - General Paediatrician involved in primary care

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Dose</th>
<th>Schedule</th>
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<tbody>
<tr>
<td>Clonazepam</td>
<td>0.5 mg</td>
<td>tid</td>
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<tr>
<td>Olanzapine</td>
<td>5 mg</td>
<td>Bid</td>
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<tr>
<td>Lorazepam (Ativan)</td>
<td>1 mg</td>
<td>Prn</td>
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<tr>
<td>Sertraline (Zoloft)</td>
<td>50 mg</td>
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<tr>
<td>Betaderm</td>
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<tr>
<td>Vaseline</td>
<td>NS</td>
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</table>
Clinical Questions from Case #2 - AC

– **What are the benefits of collaborating with 3 different settings? Challenges**

– **What should the collaborative goals be with 3 Behaviour Analysts in 3 different settings?**

– **How do we operationally define the target behaviours of “OCD” in different settings to improve measurement of medication effect?**

– **How do we assess the effectiveness of PRN restraints and medications?**
Case# 3: HV

Medically Complex where etiology is unknown

Operant behaviour → hearing voices

Medical → history of catatonia, anxiety symptoms, ? psychosis
Medical Assessment of HV

- 11 year old boy, ASD and Mild ID
- Regression of language, socialization, motor skills
- Difficulty initiating movements, freezing episodes, holding food in his mouth, hearing voices
- Medical cause ruled out by developmental paediatrician, 2 child psychiatrists, 2 neurologists, and metabolics specialist at tertiary level hospital
  - Testing normal including MRI, EEG, and labs
- Dx with atypical catatonia, started on Lorazepam.
- Dx with psychosis; some improvement in “hearing voices” with **Olanzapine**
- Increased agitation when lorazepam increased. D/C’d
- At consultation, “voices” appeared to be related to social overtures, and sometimes when agitated
Bizarre voices can have a function and should be assessed using a functional analysis

- Mace et al, 1988 → Functional analysis and treatment of bizarre speech
- Mace & Lalli, 1991 → Linking Descriptive and experimental analyses in the treatment of bizarre speech
- Wilder et al, 2001 → Brief functional analysis and treatment of bizarre vocalizations in an adult with schizophrenia
- Arnold et al., 2003 → Covariation between bizarre and nonbizarre speech as a function of the content of verbal attention
- Lancaster et al., 2004 → functional analysis and treatment of the bizarre speech of dually diagnosed adults
What does it mean when we say that bizarre voices are successful operants?

That they are shaped and maintained by positive and negative reinforcement contingencies.
Functional Behaviour Assessment

1. ABC data collection
2. File review
3. Indirect Interview
4. Content analysis – transcription
5. Functional analysis
**Behaviour Assessment**

- **Target Behaviours**

- In both functional analyses the following behaviours were targeted:

- *Talking to/about voices:* Defined by any occurrence of one or more of the following behaviours;

- Talking to another person (in the environment) about voices. As examples:
  - the voices are telling me to stop
  - they want me to do something
  - voices in my head are saying “Jaden isn’t nice”
  - (child’s name) in my head wants me to say no
  - Someone is in there

- Talking to another person who is not visible. As examples:
  - Stop, you never let people talk
  - Yeah okay just keep saying that
  - I drew this one for you
Behaviour Assessment

● Exclusionary criteria includes:
  – Singing a song to self
  – Saying lines from a movie while acting out the actions
  – Discussing what someone said in the past (e.g., At school, the teacher asked us to get out our math books and no one was listening)

“Agitation”:

● Defined by any occurrence of one or more of the following behaviours;
  – Yelling, screaming, or crying
  – Swearing
  – Inappropriate statements to others (e.g., shut up, I will punch you)
  – Negative statements or questions about self (e.g., I want to die, I hate my life, am I the devil?)
  – Throwing items
  – Banging any part of his body against the wall or furniture
Functional Analyses of “Voices”
Functional Analyses of “Voices”
Pharmacological Assessment & Treatment

- Chronic anxiety: worrying about others perceptions, hand washing,
- Family wary of medications after adverse effects
- Initially weaning of Olanzapine resulted in increased “voices”

Collaboration Point:
- Behaviour data suggested behaviours had a socially mediated function when patient is anxious and looking for reassurance (escape from anxiety)
- Treatment of anxiety by starting and increasing Sertraline
- Decreasing Olanzapine

IPC: Integrated and Shared Bio-Behavioural Care Plan
Intervention for HV
Intervention:

Data Collection

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<th>Date</th>
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<td>Fri, Sept 30/16</td>
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Worry bugs

Kung Fu the Worry Bugs

Sometimes I need to speak to mommy and daddy about something that is bothering me. When something bothers me, I feel like I want to speak about the voices. Instead I will speak to mommy and daddy. Below are some things I can speak with them about:

- Getting a hair cut for school
- Autism
- Worried about negative things he keeps repeating (crying)
- Not wanting to wash my hair to get longer
- Mad
- Bully
- Kung Fu Classes
- Teacher: 250 - 5
- 8 + 6
- Church
- Home Work
- Friends
- I hurt

Embrace Riding My Bike
Talk to Your Fish
Case #4: GRIN
Glutamate Ionotropic Receptor NMDA Type 1

Operant behaviour → Posturing
Flailing
Aggression towards a peer or object
Self injurious behaviour

Medical → GRIN1, possible seizures
Videos: GRIN
Functional Analysis of Disruptive Behaviour in GRIN
Tips for a Bio-Behavioral Assessment / Intervention

- For complex cases, choose the target behaviour/specific symptom and expert clinicians needed for assessment
  - EX: stereotyped movements:
    - were these seizures? OR
    - a part of a movement disorder? OR
    - voluntary movements with a behavioural function?
  - Neurologist with movement disorder expertise

- Comprehensive assessment considering contributing factors in Bio-Behavioural framework
Collaboration Incentives for Medical Folk

- Medical practitioners should develop, through collaboration an understanding of learning theories, operant conditioning (process by which the immediate consequences of behaviour serve to strengthen or weaken that behaviour over time) intervention strategies.

- Establish that a common goal is to improve patient care → this will help to make the collaborative process less frustrating (Granpeesheh et al., 2009).

- Understand the value of working with BCBA.
Collaboration Reinforcers for Behaviour Analysts

- Behaviour analysts should develop, through collaboration an understanding of biological theory, genetic and medical factors associated with behaviours. As well as common anti-psychotic medications and common side effects.

- Behaviour analysts collect objective measures of behaviour → medical practitioners can use these measures as a way to evaluate pharmacological effects.

- Increased effort for frequent in-person communication → planned meetings, blocks of times to discuss process and client matters (Granpeesheh et al., 2009)

- Coordination around when ABA and medical treatment will start and stop, how can they be enhanced through collaboration (behaviour + medical = increased effect or should one treatment be tried a time) (Minshwi et al., 2015)
Tips for collaboration

- Behaviour analysts should think about packaging and marketing our technology in a way that is accepted and easy to use (Allen et al., 1993)

- Think about synergistic collaboration instead of parallel development

- While there are many professions that make recommendations for behaviour problems. Board Certified Behaviour Analysts are trained in a the science of ABA
Because Process is Important!!
Reflection on the collaborative process

- We’ve discussed content and now it’s important to reflect on the interprofessional collaborative process.
- In your small group, reflect on:
  - Did everyone who wanted to, have the opportunity to contribute to the discussion?
  - Did everyone feel heard?
  - Were there different roles (facilitating, time keeping, reporting, recording) and how did members take on these roles (volunteer vs voluntold)?
IPC Competencies

● Collaboration
  – Roles and Responsibilities
  – Teams and Teamwork
  – Self reflection
  – Facilitation and Leadership

● Communication
  – Listening, giving and receiving feedback
  – Sharing information effectively, common language
  – Conflict resolution

● Values/Ethics
  – Relational-centred, diversity sensitive
  – Interdependence, creativity/innovation

Reflection

- What is one thing that you could implement from today’s workshop?
  - Later this week at work
  - In the near future with additional resources
References & Resources


References & Resources


References & Resources


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