Developing Behavioural Intervention Strategies in Dementia using principles of Applied Behaviour Analysis

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Toronto Central Behavioural Supports Ontario
Soutien en cas de troubles du comportement en Ontario du Centre-Toronto

Faculty/Presenter Disclosure

- **Faculty:** Yael Goldberg
- **Relationships with commercial interests:**
  - Grants/Research Support: N/A
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Disclosure of Commercial Support

- This program has **NOT** received financial support other than the support of the MOHLTC
- This program has **NOT** received in-kind support
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Mitigating Potential Bias

The information presented in this program is based on recent information that is explicitly "evidenced-based".

The Behavioural Support Rounds Program and its material is peer reviewed and all the recommendations involving clinical medicine are based on evidence that is accepted within the profession; and all scientific research referred to, reported, or used in the BSR Activity in support or justification of patient care recommendations conforms to the generally accepted standards.

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Learning Objectives

1. Review the elements involved in gathering reliable data in a functional behavioural assessment
2. Provide an overview of behavioural functions
3. Share intervention strategies borne from principles of Applied Behavioural Analysis
4. Apply learnings to a clinical case

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Functional Behavioural Assessment in Dementia

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What do we want to know about the behaviour?

- What exactly is happening?
- When is it happening? Specific time of day or activity?
- How often is it happening (frequency)?
- How long does it last (duration)?
- Who is the behaviour affecting?
- How difficult is it to manage?
- How disruptive is it?
- Does the behaviour pose risks to safety?
- What is the meaning behind the behaviour?
- What factors might be triggering or reinforcing the behaviour?

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What tools can we use to find out what we want to know?

- Dementia Observation Scale (DOS)/ BSO-DOS
- Cohen-Mansfield Agitation Index (CMAI)
- Neuropsychiatric Inventory (NPI)
- P.I.E.C.E.S.™
- ABC charting
- Structured interview
- Direct observation

How do we choose which tool to use? Who are we going to ask?

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Selecting behaviour assessment tools and informants

- Depends on patient living situation
  - Home: Family caregivers
  - Acute care/LTC: Health care team

- Challenges
  - Getting ahold of prior documentation
  - Asking to track frequency/duration of behaviour
  - Short on time
  - Acute care/LTC:
    - Identifying primary contact person for scheduling team meetings
    - Confirming POA/SDM consent
    - Identifying informants who know the patient best

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Setting vs. Antecedent events

- Setting Event
  - Some point before a behaviour
  - E.g., poor sleep the night before resulting in greater likelihood of aggression occurring
    - P.I.E.C.E.S.

- Antecedent Event
  - Immediately before a behaviour
  - E.g., asking a patient to take medication results in physical aggression

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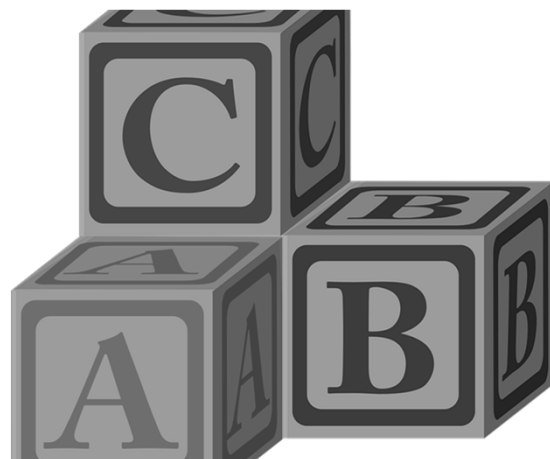
Collecting antecedent data in a functional behavioural assessment

Behaviours of concern	Examples	Triggers/ Antecedents (Context)	Outcome (Response)/ Consequence
Physical Aggression	Hitting, Spitting, Kicking, Throwing items at staff	Attempts to provide care, when feels she is not getting her way or needs aren't being met	Gently yet firmly asking her to stop, removing access to items that can be used as weapon, giving PRN and re-approaching
Verbal Aggression	Yelling, Swearing, Shouting for help, Racialized comments towards staff	When she wants help, when she wants something done on her timeline	Using GPA, communicating what is happening to pt., Explaining that her behaviour is inappropriate and how it makes others feel, Telling her to stop screaming and I'm going to leave
Resistive to Care	Refusing medical procedures, showers, care routines	Approach by unfamiliar staff, More likely on Evening shift, showers are given in evening	Engaging her in conversation about a preferred topic, Approach for care in pairs with familiar staff

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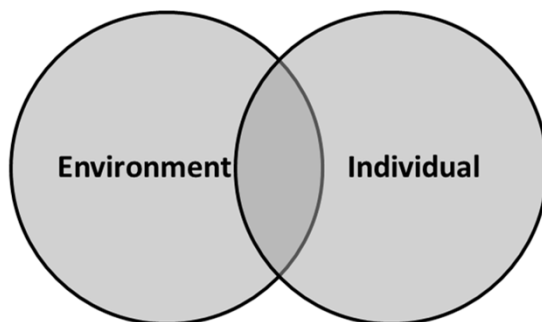# Functions of Behaviour

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Why do behaviours happen?

1. Unmet Needs Model
   - Behaviour is a means of communication

2. Behavioural/Learning Model
   - Behaviour is learned through reinforcement

3. Environmental vulnerability/reduced stress-threshold Model
   - Behaviour is an extreme reaction to environmental stress

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Environmental influence on behaviour

Lawton's (1974) "Person-Environment Fit"

Environment   Individual

Every behaviour is completely dependent on the interaction between an individual person and their environment

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Behavioural functions and antecedents

S.E.A.T.

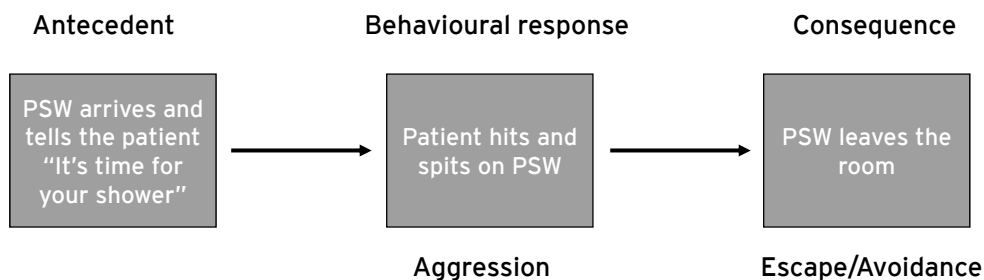| Sensory Stimulation	Escape/ Avoidance	Attention	Tangible
• Seeking an enjoyable/ comforting sensation	• Situation • Task • Feeling of displeasure, distress, discomfort	• Seeking a reaction from you • Seeking your engagement	• Access to item, food, activity

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What is the potential function here?

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Intervention Strategies drawn from Applied Behaviour Analysis

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Contingency

Set of rules specifying the relationship between two events, such as the antecedent and behavioural response, or behavioural response and consequence

Antecedent	Behavioural response	Consequence
PSW arrives and tells the patient "It's time for your shower"	Patient hits and spits on PSW	PSW leaves the room
	Aggression	Escape/Avoidance

Contingency: Relationship between Aggression + Escape/Avoidance

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Antecedent interventions based on behaviour function

Function	Possible Interventions
Sensory Stimulation	• Address any medical concerns • Enrich the environment with the right amount of stimulation • Include sensory activities in daily routine
Escape/ Avoidance	• Allow choices between care tasks • Provide frequent breaks • Use behaviour momentum*
Attention	• Provide attention on a fixed time schedule (Pro-attention plan) • Set an egg timer to indicate when staff will return • Provide high-quality verbal praise (enthusiastic, behaviour-specific)
Tangible	• Use a visual schedule to indicate when the preferred item will be available • Allow access to the item on a fixed time schedule • Provide adequate opportunities to have access to the preferred item

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Key Strategies

• Build Behaviour Momentum
  • Introduce high frequency behaviours before a low frequency one

• Shape the Behaviour
  • Gradually teach behavior through reinforcing successive approximations until the target behavior is achieved

• First/Then Approach
  • Reinforce desired behaviour with preferred item and verbal praise

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Application to a Clinical Case

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**Stages of conducting
Functional Behaviour
Assessments
and developing
Behaviour Support Plans**
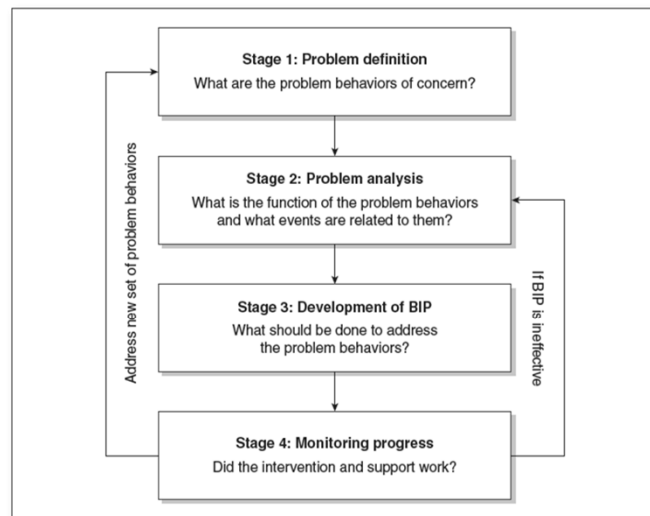
NOTE: BIP = Behavior intervention [or support] plan

SOURCE: From J. R. Nelson, M. L. Roberts, and D. J. Smith, *Conducting Functional Behavioral Assessments: A Practical Guide.* Copyright © 1998 by Sopris West. Reprinted with permission from Cambium Learning Group-Sopris West Educational Services, Longmont, CO. 800-547-6747. (Packs of forms are available for purchase from Sopris West.)

Case Example

Behaviours of concern	Examples	Triggers/ Antecedents (Context)	Outcome (Response)/ Consequence
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Strategies for this case?

- Offer non-contingent attention at fixed times
  - Attention: use PIECES to inform (e.g., discussing preferred TV shows, involving her in planning timing of care routines)
- Reinforce appropriate ways of asking for help other than yelling
  - Utilizing a call bell (practice pressing and staff appearing)
- Increase tolerance to waiting for needs to be met by using an egg timer.
  - Set a timer for a short duration (i.e., 1 minute), say "when this rings, I'll come back and help you [task]"
- Create a daily schedule that is visible to patient
- C.A.R.E.R. Tool to help staff in light of racialized comments and other aggression

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What challenges have you encountered or do you foresee?

- Resistance
  - Getting buy in from experienced staff or families

- Resources
  - To collect behavioural data
  - To implement interventions
  - To monitor progress

- Continuity of care
  - Staffing changes
  - Discharges

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Thank you!

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