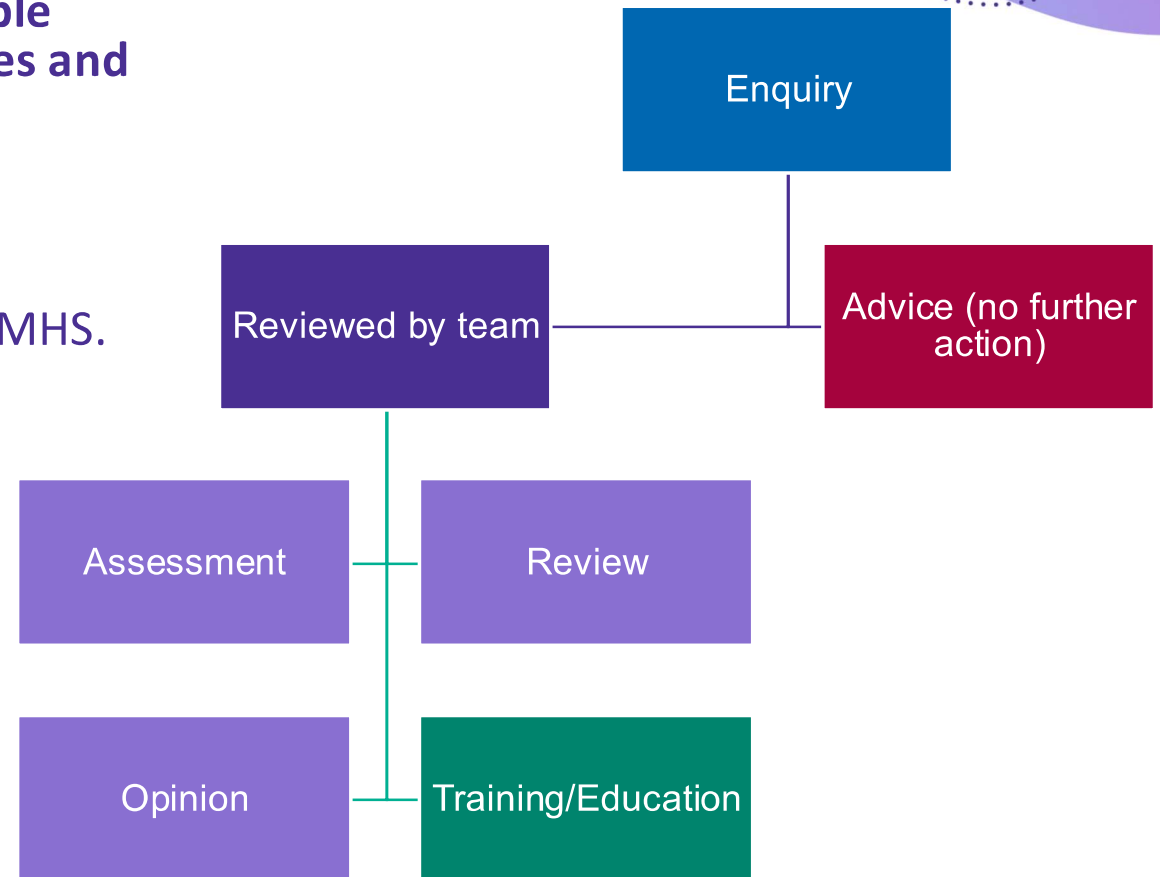# Victorian Dual Disability Service (VDDS)

State-wide mental health service for people with co-occurring mental health challenges and a developmental disability.

What does VDDS do?

- Telephone consultation to anyone.
- Assessment & consultation for public AMHS.
- Assessment & consultation for NDIS participants
- Education & Training
- Service Development

How to make a referral or request training:

- *Telephone Referral: (03) 9231 1988*
- *Email: vdds@svha.org.au*

Enquiry

Advice (no further action)

Reviewed by team

Assessment

Review

Opinion

Training/Education

ST VINCENT'S
Better and fairer care. Always.

Better and fairer care. Always.

OBJECTIVES

1. Overview of behaviour concepts
2. Nature & prevalence of challenging behaviours
3. Basics of functional behaviour assessment
4. Positive behaviour support

Learning

What is a "Behaviour"?

*Anything a person does that can be detected. Ideally, anything a person does that can be **OBSERVED** and **MEASURED**.*

Emphasis is on measuring observable behaviours, instead of unobservable constructs (unconscious, thoughts, feelings).

Behaviour is assumed to be dependent on previous learning/experience.

Behaviour is the observable response a person makes to any situation/stimulus.

Stimulus → Response
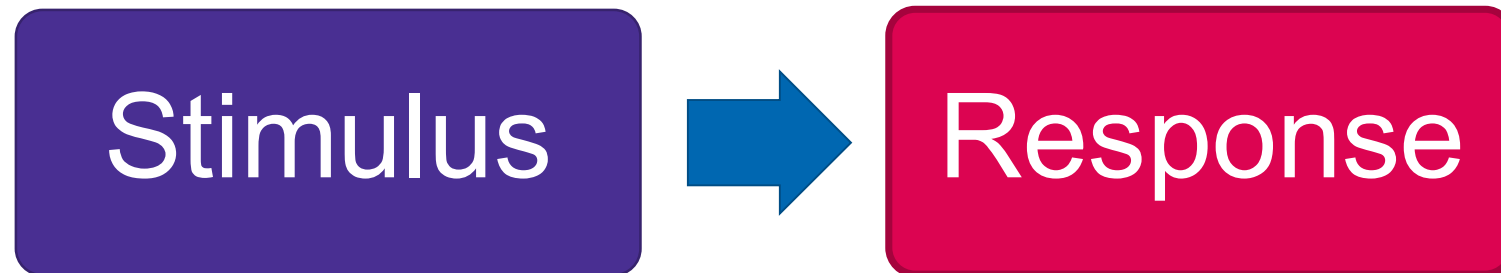
Models of Learning

Learning is a relatively permanent change in a behavioral potentiality (repertoire) that occurs as a result of reinforced practice or experience (learning).
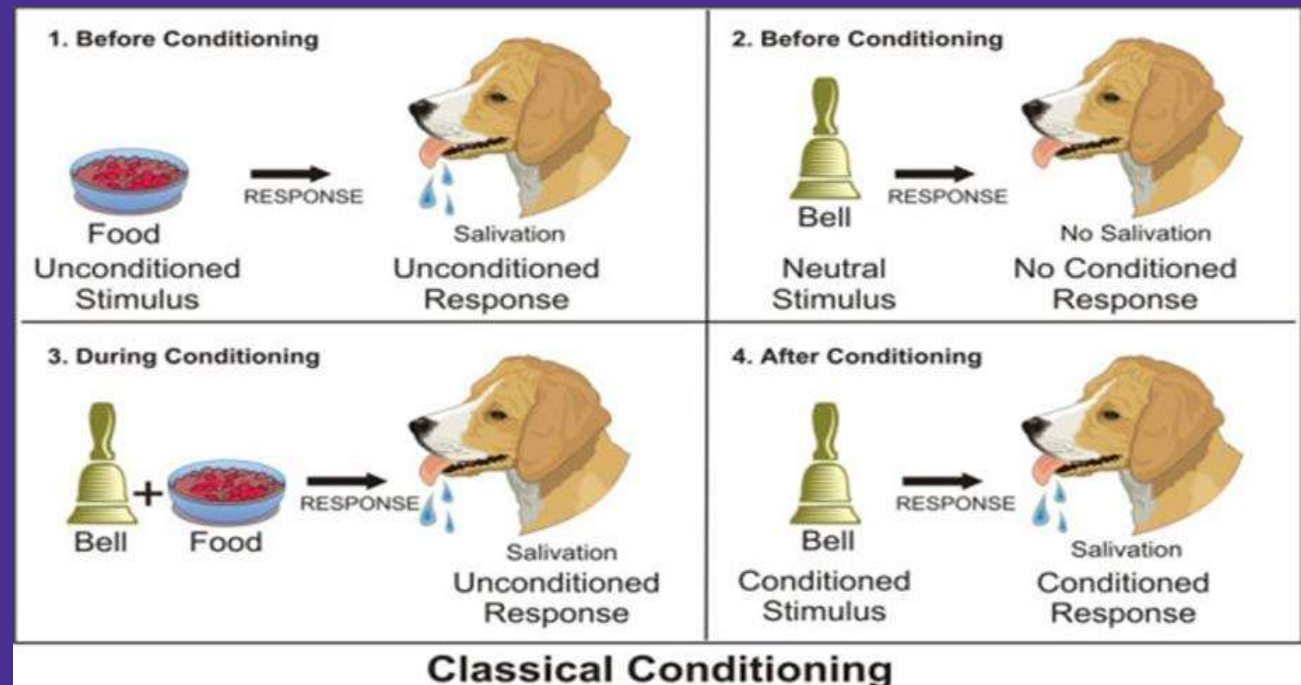
- **Classical conditioning:** Pavlov, environmental events lead to response.

- **Operant conditioning:** Skinner, person acts on environment to get a response.

- **Social cognitive theory:** Modelling / observation

- **Cognitive model of learning:** Academic, understanding, concepts.

- **Developmental / Psychodynamic:** Piaget, Freud

Classical Conditioning
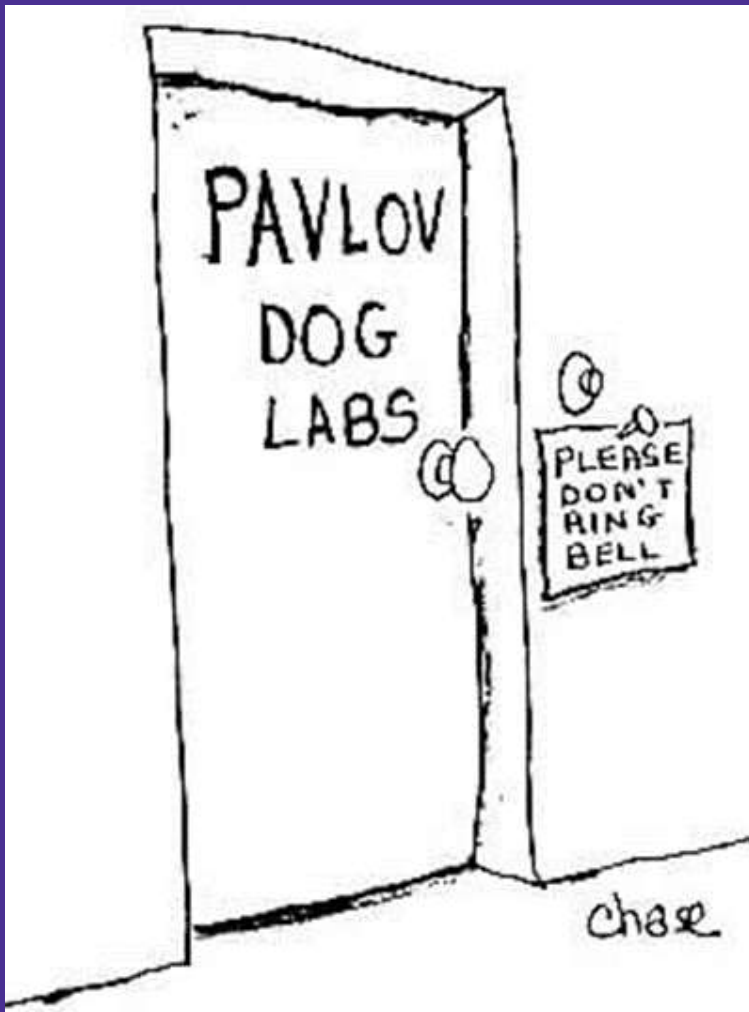
- Involuntary, reflex (fear, anxiety, anger)
- Regulates physiology for safety & survival
- Relatively insensitive to consequences
- Stimulus (S) – Response (R)

1. Before Conditioning

Food
Unconditioned
Stimulus → RESPONSE → Salivation
Unconditioned
Response

2. Before Conditioning

Bell
Neutral
Stimulus → RESPONSE → No Salivation
No Conditioned
Response

3. During Conditioning

Bell + Food → RESPONSE → Salivation
Unconditioned
Response

4. After Conditioning

Bell
Conditioned
Stimulus → RESPONSE → Salivation
Conditioned
Response

Classical Conditioning

Classical Conditioning and Phobias

Before Conditioning:
Neutral stimulus (white rat) → No fear

UCS (Steel bar hit with a hammer) → Natural reflex → UCR (fear)

During Conditioning:
Neutral stimulus (white rat) + UCS → Natural reflex → UCR (fear)

After Conditioning:
Neutral stimulus (white rat) → Conditioned reflex → UCR (fear)

- Little Albert showed no fear of white rat but hated loud noises .

- Rat + loud bang startled Little Albert and made him cry.

- After repetition Little Albert was (classically) conditioned to experience fear at the sight of the rat.

- Albert's fear generalized to similar stimuli (fur coat, some cotton wool, and a Father Christmas mask) and became a problem

Classical Conditioning and Phobias

Interventions

- *Extinction = process of unpairing of US with CS by:*

1. **Systemic Desensitisation/Exposure therapy**
   - Relax and increase exposure to hierarchy of fear (play with rat in while relaxed)
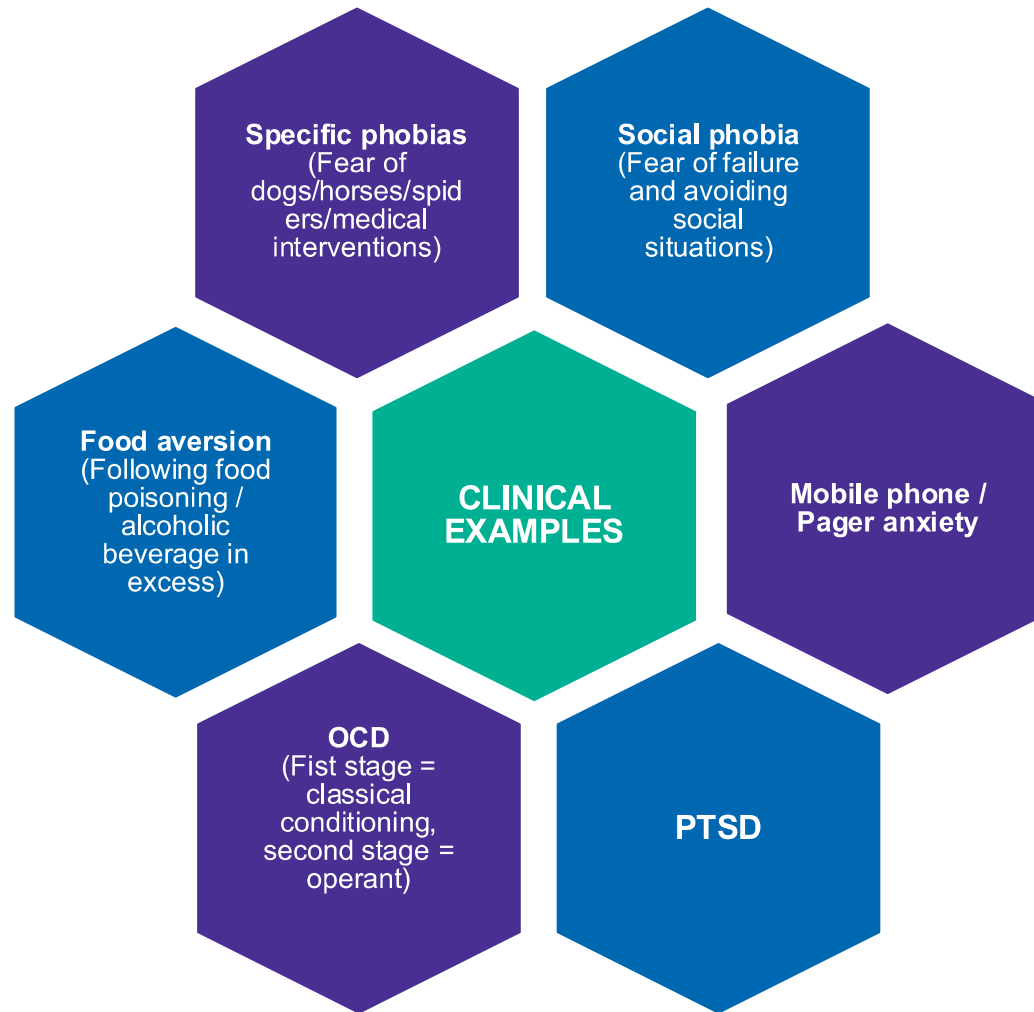
2. **Flooding**
   - Abrupt exposure to the fear-evoking stimulus (ie to rat)
   - Treatment of phobias (specific, social, medical)
   - Not an appropriate treatment anymore.

? Midazolam useful to prevent "learning" in medical procedures

Little Albert never cured…. (withdrawn from study and died aged 6 of hydrocephalus)

ST VINCENT'S
Better and fairer care. Always.

Better and fairer care. Always.

Clinical examples Classical Conditioning

Specific phobias (Fear of dogs/horses/spiders/medical interventions)

Social phobia (Fear of failure and avoiding social situations)

Food aversion (Following food poisoning / alcoholic beverage in excess)

CLINICAL EXAMPLES

Mobile phone / Pager anxiety

OCD (Fist stage = classical conditioning, second stage = operant)

PTSD

Operant Conditioning

➢Behaviour that acts on the environment (operant)

➢Voluntary or purposeful

➢Controlled by immediate consequences

➢Reinforcement increases behaviour

➢Punishment decreases behaviour

➢Identification of reinforcers can be challenging & may need to be verified by observation/direct assessment

| Antecedent (A) | → | Behaviour (B) | → | Consequence (C) |
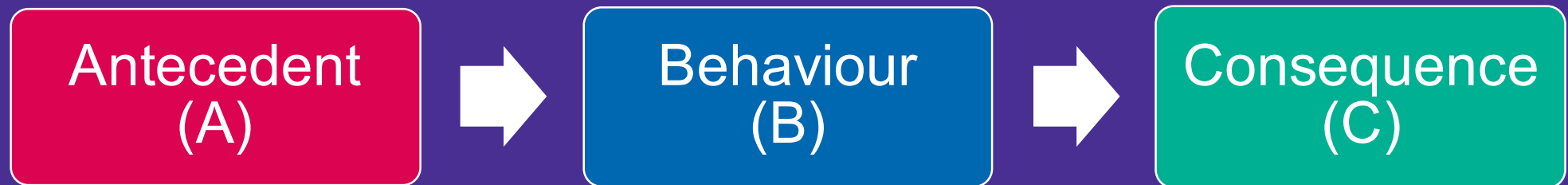
Operant Conditioning: Reinforcement

	Reinforcement (Increase / maintain behaviour)	Punishment (Decrease behaviour)
Positive (add stimulus)	Add pleasant stimulus to Increase / maintain behaviour	Add aversive stimulus to Decrease behaviour
Negative (remove stimulus)	Remove aversive stimulus to Increase / maintain behaviour	Remove pleasant stimulus to Decrease behaviour

Operant Conditioning

Reinforcement Schedules

Continuous Reinforcement – every time behaviour occurs

- Good during initial stages of learning, rapid results.

- Effect can wear off, consider occasional jackpot!!!

- Issues with tangibles e.g. food – weight gain

Partial Reinforcement - reinforced only part of the time

1. Fixed rate or interval- high, steady rate of responding.
   - Slower learning but more resistant to extinction.

2. Intermittent reinforcement - unpredictable reinforcement
   - e.g. pokies, enduring & resistant to change
   - Easier with high frequency behaviours.

WILL PRESS LEVER FOR FOOD

Operant Learning - Techniques

Modelling
(Observational or practical)

Chaining
(Forwards and backwards)

Task Analysis
(Small steps, taught sequentially, reinforce each successful step)

Shaping
(Reinforce successful approximations of the behaviour)

Prompting
(Assistance or cues to encourage the use of a specific skill)

Fading
(Gradually reducing prompts as they become more proficient)
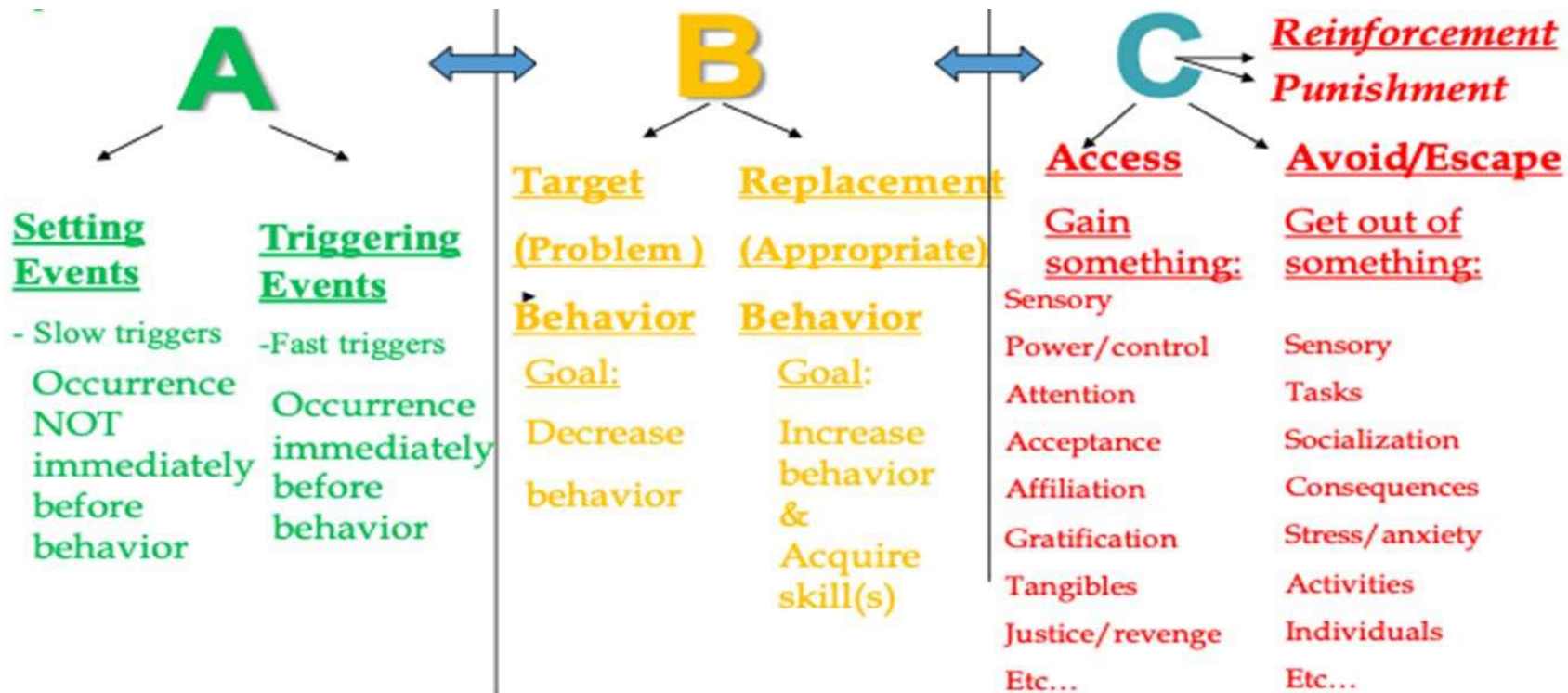
Application of Operant Learning

➤ Behaviour modification =

- Teach or increase desirable/adaptive behaviour

- Extinguish or reduce undesirable behaviour

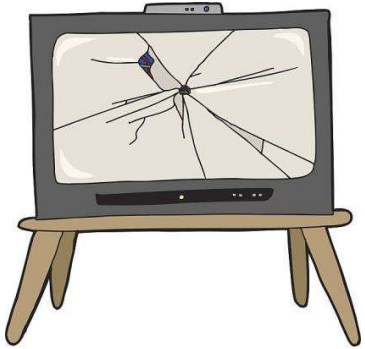- Principles applied in a range of settings (schools, sports, work, mental health, parenting)

ST VINCENT'S
Better and fairer care. Always.

Better and fairer care. Always.

Behaviour Assessment: ABC

Antecedents	Behaviour	Consequences
Factors that influence / predict behaviour		*Outcomes / Function*

A

Setting Events

- Slow triggers

Occurrence NOT immediately before behavior

Triggering Events

-Fast triggers

Occurrence immediately before behavior

B

Target (Problem) Behavior

Goal:

Decrease behavior

Replacement (Appropriate) Behavior

Goal:

Increase behavior & Acquire skill(s)

C

Reinforcement
Punishment

Access

Gain something:
Sensory
Power/control
Attention
Acceptance
Affiliation
Gratification
Tangibles
Justice/revenge
Etc…

Avoid/Escape

Get out of something:

Sensory
Tasks
Socialization
Consequences
Stress/anxiety
Activities
Individuals
Etc…

ST VINCENT'S
Better and fairer care. Always.

Better and fairer care. Always.

What is a "*Challenging Behaviour*"?

What is Challenging Behaviour?

- Problem behaviour / Behaviour of Concern (BoC)
- Describes a wide range of behaviours including:
  - aggression
  - property damage
  - self-injury
  - non compliance
- Has a range of negative impacts
  - poorer quality of life
  - impact on family / carers
  - reduced access to community
- High consumption of specialist often costly services.
- Not a diagnosis but indicates that behaviour is a challenge to services, family, carers & the person, but may be functional.

ST VINCENT'S
Better and fairer care. Always.

Better and fairer care. Always.

Definitions of Challenging Behaviour

'*Behaviour of such an intensity, frequency or duration as to threaten the quality of life and / or the physical safety of the individual or others and is likely to lead to responses that are restrictive, aversive or result in exclusion*' (Royal College of Psychiatrists 2007)
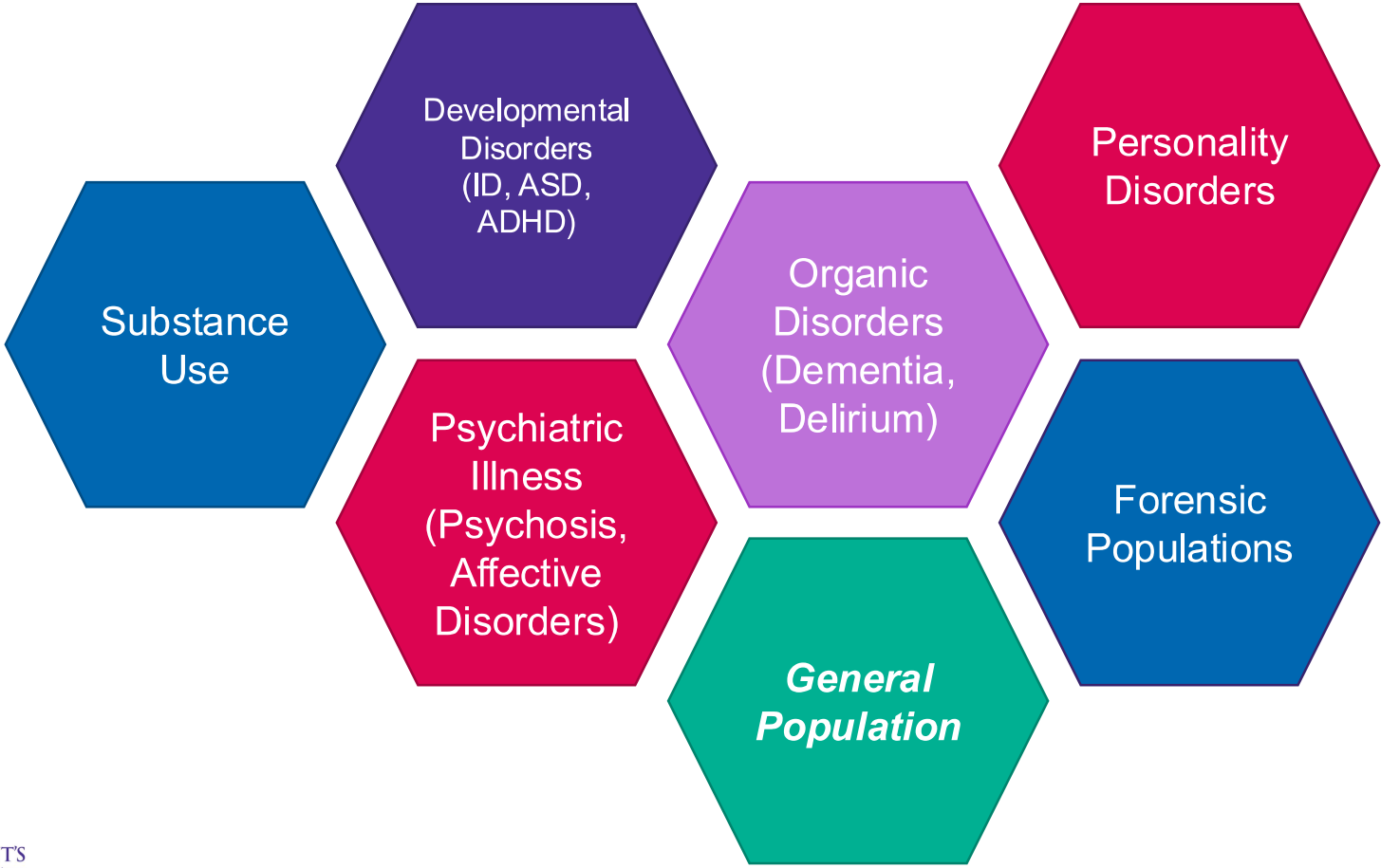
'*Culturally abnormal behaviour(s) of such an intensity, frequency or duration that the physical safety of the person or others is likely to be placed in serious jeopardy, or behaviour which is likely to seriously limit use of, or result in the person being denied access to, ordinary community facilities*' (Emerson, 1995).

ST VINCENT'S
Better and fairer care. Always.

Better and fairer care. Always.

Social Context of Behaviours of Concern

- Behaviour occurs due to interaction between the person and their environment, and as such is **largely socially constructed**.

- The setting in which behaviours occur determine whether the behaviour is considered challenging (e.g. shouting at footy vs in a library).

- **Unhelpful** explanatory models of challenging behaviour include:
  - "They can't help it"
  - Implying that the problem is **within** the person

- People who show behaviours of concern are more likely to be abused and exposed to inappropriate treatments (medication) and restrictive practices.

ST VINCENT'S
Better and fairer care. Always.

Better and fairer care. Always.

Challenging Behaviour occurs in:

- Substance Use
- Developmental Disorders (ID, ASD, ADHD)
- Psychiatric Illness (Psychosis, Affective Disorders)
- Organic Disorders (Dementia, Delirium)
- General Population
- Personality Disorders
- Forensic Populations

Prevalence of Challenging Behaviour

- Major methodological issues with many studies.

- **53%** of school children with ID (Nichols 2018)

- Rates vary from **4-22%** in population samples to **50-80%** in specific populations (institutions, mental health)

- **Risk factors:**
  - Autism (communication problems)
  - Low IQ
  - Mental Illness
  - Sensory sensitivities
  - Being male
  - Trauma
  - Age
  - Specific syndromes
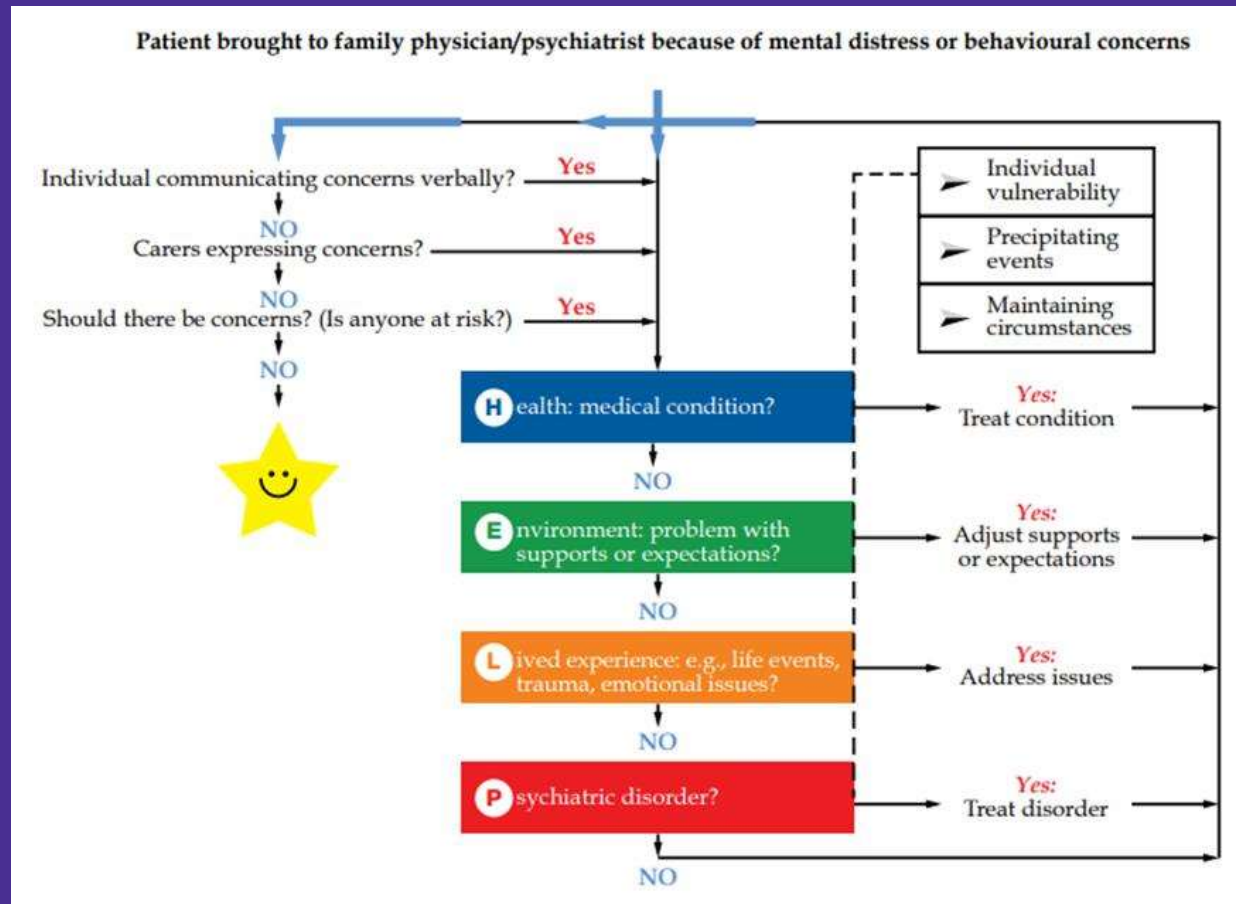
- **5 to 7%** persistent and lifelong (Rx resistant) and **60%** in past 3 months

ST VINCENT'S
Better and fairer care. Always.

Better and fairer care. Always.

Causes of Challenging Behaviour

Diagnostic overshadowing = "Everything is behavioural"

There are **countless** causes.

Biological	- Genetic syndromes - Pain - Medication - Sensory - Sleep - Mental disorders
Psycho-social	- Gaining control - Obtaining items or attention - Avoiding aversive stimuli - Communicating - Mental health problems
Environmental	- Challenging environments - Lack of activities - Poor social support High rates of physical restrictive interventions & abusive practices

HELP with Behaviours That Challenge

Patient brought to family physician/psychiatrist because of mental distress or behavioural concerns

Assessing Challenging Behaviour

Behaviour Change: Key Questions

➤ Is the behaviour a problem and who is it a problem for?
  - Just because something is "annoying" or "different" doesn't mean it is a problem.

➤ Is behaviour change essential?
  - Does the behaviour put the person or others at significant risk?

➤ Is the 'behaviour' new or has it always been present?

➤ Does the person have physical health problems, communication issues or pain?

➤ Is there evidence of an abnormal mental state and what is the relationship between mental state and behaviour?

➤ Is there evidence that the behaviour is primarily shaped by environmental factors?
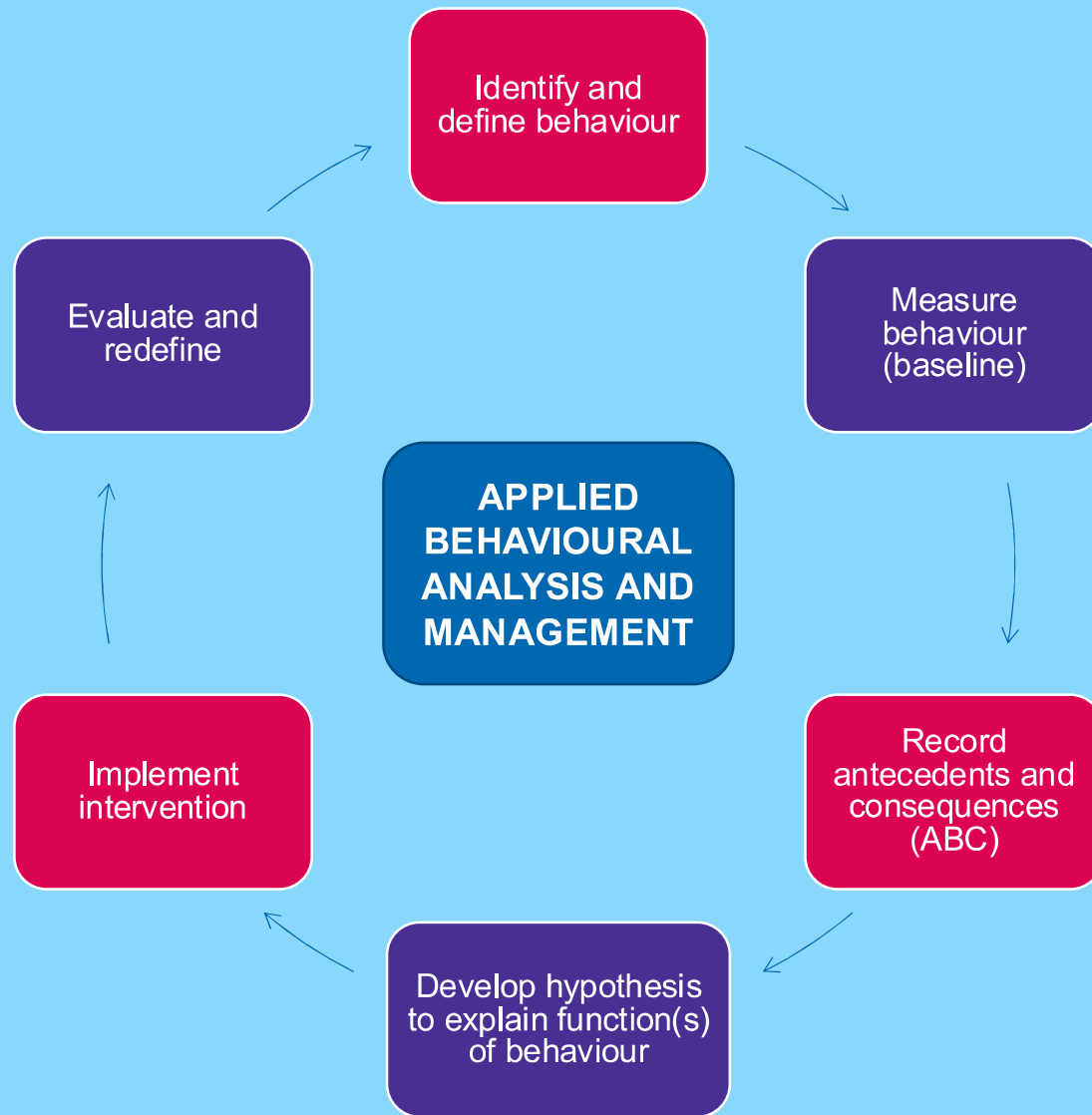
Behaviour Change: Key Questions

WHY?

➢ What is the **function** of the behaviour?

➢ There is **always** a reason for a behaviour.

Everybody **EATS**

➢ **E**scape / Avoid demands, social attention, aversive stimuli, get control

➢ **A**ttention / communication

➢ **T**angible rewards: preferred items or activities

➢ **S**ensory; self stimulatory

Direct Observation: A-B-C Example

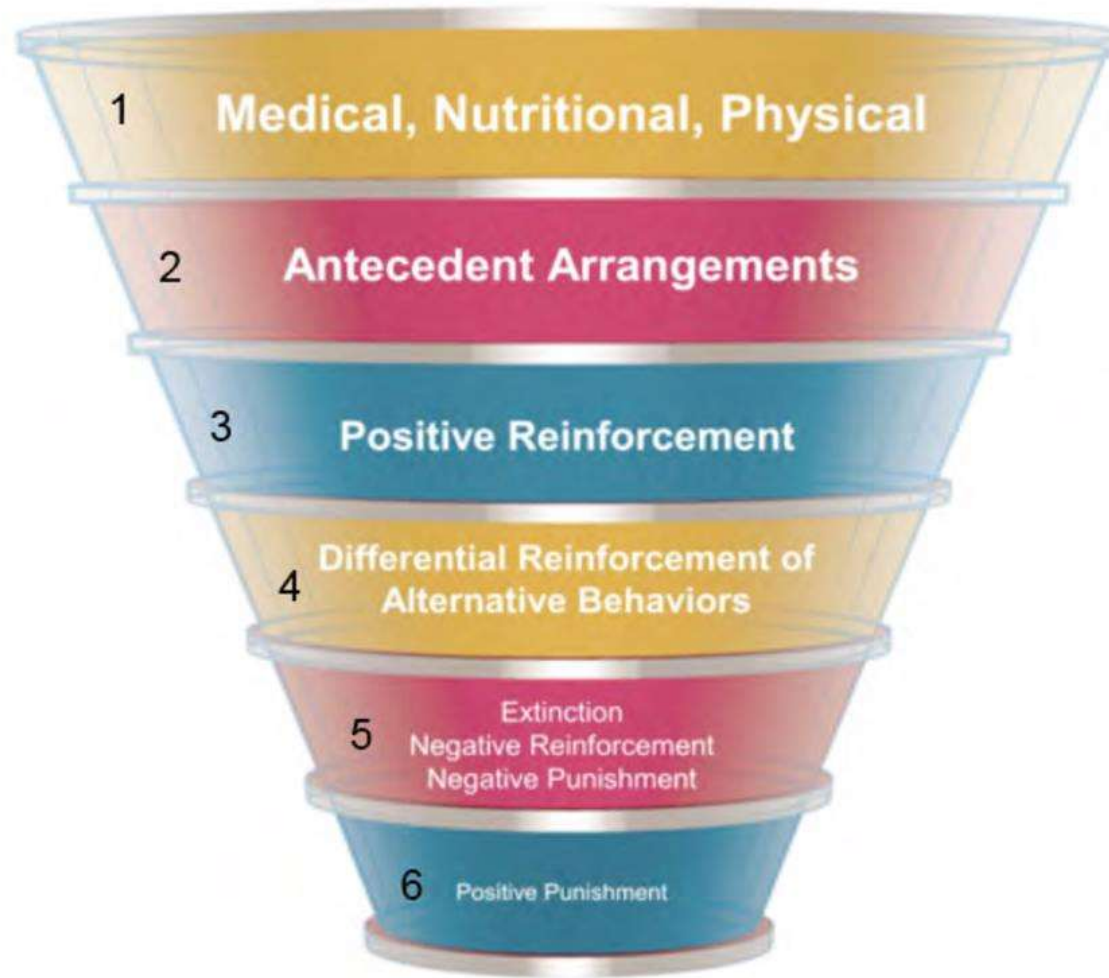| ANTECEDENT		BEHAVIOUR	CONSEQUENCE
Setting Events	**Trigger**	**Action**	**Result**
Examples • Tired • Change in routine • Noisy / busy • New and harder task • New manager • New co-workers	Examples • Asked to complete tasks • Demand was repeated several times	Examples • Shouted / swore • Punched staff and co-workers	Examples • Asked to leave the workroom or walk home • Escaped from demand and aversive environment • Engaged in pleasurable behaviour as a result of aggression

How Do I Know When I've Done It?

A functional behaviour assessment is complete when these five main outcomes have been achieved:

1. Problem behaviour target is clearly and operationally defined.

2. Identification of events & situations which predict when target behaviour will or will not occur & what increases or decreases behaviour.

3. Identification of what function/s the behaviour appears to serve.

4. Development of summary statements / hypotheses which describe explicit behaviours, type of situation in which this behaviour occurs, & the variables maintaining the behaviour in that situation.

5. Data to verify the summary statements that have been developed.

Ethical Hierarchy of Behaviour Managemen

1 Medical, Nutritional, Physical
2 Antecedent Arrangements
3 Positive Reinforcement
4 Differential Reinforcement of Alternative Behaviors
5 Extinction
Negative Reinforcement
Negative Punishment
6 Positive Punishment

Managing Challenging Behaviour

Summary of "Positive Behaviour Support

PROACTIVE STRATEGIES			REACTIVE STRATEGIES
Ecological Manipulation	**Positive Programming**	**Direct Treatment**	
• Settings • Interactions • Instructional Methods • Instructional Goals • Environmental Pollutants (e.g. noise, crowding) • Number and Characteristics of other people	• General Skills • Development • Functional equivalent • Functional related • Coping/Tolerance	*Behavioral* • Differential Schedules of Reinforcement • Stimulus Control • Instructional Control • Stimulus Satiation • Etc. *Other* • Neurophysical Techniques • Medication Adjustments • Dietary Changes • Etc.	• Active Listening • Stimulus Change • Crisis Intervention

Proactive Strategies: Environmental

Change the environment to better fit with the person

Positive Design
- Educational, vocational, meaningful, appropriate
- Supported routines

**Increased choice**
- Support for autonomy

Environmental Enrichment
- Social contact, music, activities of interest

Inter-personal Atmosphere
- Addressing overcrowding
- Friendships, manage conflict, co-occurring behaviour

ST VINCENT'S
Better and fairer care. Always.

Better and fairer care. Always.

Direct Behaviour Intervention / Focused Support

- Alternative to punishment that can cause escalation.

- Includes non behavioural strategies (e.g. medication, diet)

- Aim to rapidly reduce behaviour

- Differential reinforcement of other/alternative/ incompatible behaviour

- Stimulus control (traffic lights, alarm)

- Stimulus satiation (repeated presentation of reinforcer)
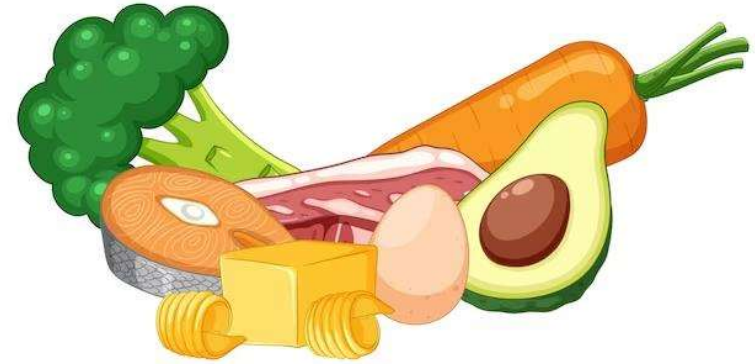
Pharmacology

- **Examples:**
  - Antipsychotics
  - Antidepressants
  - Antiepileptics
  - Sedatives
  - Naltrexone
  - Cannabinoids

- Medication for specific disorders; treat as usual.

- Limited evidence of effectiveness for behaviour management in absence of diagnosis.

- Need to set targets & timelines and evaluate against baseline to define success.

- Cease if ineffective.

- Polypharmacy is common and best avoided.

- May be considered to be a **restrictive intervention** when not prescribed to treat a specific disorder.

Psychological Interventions

Teach to engage in a wide range of meaningful activities

CBT / DBT for anxiety, depression, grief, self-harm, phobia

Adaptive Coping (psycho-education, problem-solving, relationships)

Address communication problems / differences

ST VINCENT'S
Better and fairer care. Always.

Better and fairer care. Always.

Implementation of Interventions…

- requires consistency (intermittent reinforcement).
- requires ONGOING staff training and support.
- may result in increased risks when extinction burst.
- is intensive.
- needs reactive strategies (crisis plan).
- needs to be maintained for long periods of time; *potentially lifelong*.

ST VINCENT'S
Better and fairer care. Always.

Better and fairer care. Always.

Summary

➢ Complete a **THOROUGH** comprehensive assessment. This is the basis of any good plan.

➢ Remember physical and mental health.

➢ <u>**ALL**</u> behaviours have a function. Always ask "**why**?"

➢ Optimise the environment.

➢ Intervention needs to be guided by formulation.

➢ Only where new learning has occurred will you be likely to obtain lasting behavioural change.

➢ Strong communication and collaboration between the support team is critical.

➢ Measure outcomes. <u>**Always**</u>.

➢ Modify according to evidence.

Thank you

For a copy of these slides, please email
vdds@svha.org.au with subject header
"Please send Challenging Behaviour webinar slides"

PLEASE COMPLETE THE POLL

Resources

- http://drleashabarry.com/pbs/schedule/articles/carbonemethod.pdf

- http://behaviorbabe.com/

- https://barefootbehavior.wordpress.com/

Footnote to go here

Better and fairer care. Always.

Day/Month/Year

References

- Babel, P. (2019). Classical conditioning as a distinct mechanism of placebo effects. Frontiers in Psychiatry, 10, 449.

- Bell, M. C., & Fahmie, T. A. (2018). Functional analysis screening for multiple topographies of problem behavior. Journal of applied behavior analysis, 51(3), 528-537.

- Bowring, D. L., Totsika, V., Hastings, R. P., Toogood, S., & McMahon, M. (2017). Prevalence of psychotropic medication use and association with challenging behaviour in adults with an intellectual disability. A total population study. Journal of Intellectual Disability Research, 61(6), 604-617.

- Emerson, E., & Einfeld, S. L. (2011). Challenging behaviour. Cambridge University Press.

- Hayward, B. A., McKay-Brown, L., & Poed, S. (2019). Positive behaviour support in Australian disability policy, and its future with the National Disability Insurance Scheme (NDIS). Research and Practice in Intellectual and Developmental Disabilities, 6(1), 14-23.

- LaVigna, G. W., Willis, T. J., & Marshall, J. Q. (2009). Positive Practices in Behavioral Support: Through Nonlinear Applied Behavior Analysis. Institute for Applied Behavior Analysis.

- Liberman, R. P., & LaVigna, G. W. (2016). Basic principles of treatment for aggressive behavior in persons with mental and developmental disabilities. Nova Science Publishers.

ST VINCENT'S
Better and fairer care. Always.

Footnote to go here

Day/Month/Year

Page 42

Better and fairer care. Always.

References

- Marcus, B. A., & Vollmer, T. R. (1996). Combining noncontingent reinforcement and differential reinforcement schedules as treatment for aberrant behavior. Journal of Applied Behavior Analysis, 29(1), 43-51.

- Phillips, C. L., Iannaccone, J. A., Rooker, G. W., & Hagopian, L. P. (2017). Noncontingent reinforcement for the treatment of severe problem behavior: An analysis of 27 consecutive applications. Journal of Applied Behavior Analysis, 50(2), 357-376.

- O'Neill, R. E., Albin, R. W., Storey, K., Horner, R. H., & Sprague, J. R. (2014). Functional assessment and program development. Cengage Learning.

- Pryor, K. (2019). Don't Shoot the Dog: The Art of Teaching and Training. Simon & Schuster.

- Skinner, B. F. (1963). Operant behavior. American psychologist, 18(8), 503.

- Skinner, B. F. (1965). Science and human behavior (No. 92904). Simon and Schuster.

- Sturmey, P. (Ed.). (2020). Functional analysis in clinical treatment. Academic Press.

- Vargo, K. K. (2020). A Teacher's Guide to Using a Multiple Schedule of Reinforcement in Educational Settings. Intervention in School and Clinic, 1053451220910745.

ST VINCENT'S
Better and fairer care. Always.
Footnote to go here
Page 43
Better and fairer care. Always.
Day/Month/Year