DESENSITIZATION to Health Related Procedures
SUPPORTING INDIVIDUALS WITH DUAL DIAGNOSIS

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Desensitization

• Fear and anxiety often prevent an individual from participating in activities which maintain good health and quality of life.
• In order to increase participation, there are some strategies which may be used to help manage anxiety and fear based behaviour.
• We will review strategies which may assist individuals with a dual diagnosis in overcoming or coping more effectively with this fear/anxiety and promote/encourage healthy living options.

Behaviour Therapy

Based on Social Learning Theory

• Social modeling
• Respondent conditioning
• Operant conditioning
**Social Modeling**

We learn from watching others

Behaviour is learned through imitation and observation

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**Respondent Conditioning**

- The presentation of a neutral stimulus paired with a stimulus of significance (unconditioned).
- The unconditioned stimulus evokes an immediate behavioural response.
- Through repeated association (the two are paired), the neutral stimulus becomes conditioned to evoke the same behaviour.

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**Respondent Conditioning**

- If the unconditioned stimulus is aversive/painful, conditioned stimulus becomes associated with pain.
Operant Conditioning

- We engage in a behaviour because it serves a function or purpose. The consequences for our behaviour meet our needs.
- The function when presented with an aversive stimulus is usually an attempt to escape or avoid.

How to Change Behaviour

2 Steps

- **Desensitization** - Offer strategies to better cope with an aversive stimuli (i.e. reduce anxiety or stress)
- **Operant Conditioning** - Offer reinforcement for completing the expectation.

Step 1

Desensitization

- Before teaching "coping strategies" it is important to determine the levels of behaviour/anxiety when presented with an aversive situation.
- This called developing the **Hierarchy of Fear**.
Hierarchy of Fear

• Determine the individual’s anxious behaviour. (describe/define).
• Break down the activity into steps.
• Determine at which point during the activity does the individual begin to demonstrate the behaviour:
  – Does it start when told about an appt.
  – When leaving
  – When they see the building
  – While waiting in waiting area
  – When they see the professional
  – The equipment

Hierarchy of Fear

• Walk through the process yourself in the natural environment.
• Consider various sources of stimulation which may influence behaviour/anxiety.
  – New or unusual environment
  – People/dress
  – Lighting
  – Sounds
  – Instruments/equipment
  – Smells
  – Wait time

Hierarchy of Fear

• Discuss with individual their experience and interview those who have taken the individual through the process.
• Attempt to identify possible triggers to the anxious behaviour.
• Using a scale can help indicate level of anxiety
Hierarchy of Fear

• At what point does the individual present anxious behaviour indicators (make sure to list/describe these behaviours).

• At what point does the individual stop cooperating and attempt to escape (this may include the use of problem/disruptive, dangerous behaviour).

Hierarchy to Dental Procedure

1. Informed by direct care staff of dental visit
2. Travels with staff to simulated dental office
3. Enters hall by simulated Dental Department
4. Stays close to simulated dental exam room door in hall
5. Stays in dental room by door
6. Sits next to dental chair
7. Touches dental chair if physically able
8. Sits in dental chair or Geri-chair if physically able
9. Stays in chair by door
10. Sits in chair with suction sounds
11. Sits in chair with suction and drill sounds
12. With staff dressed in dental gown wearing latex gloves, remains seated in chair
13. Stays in chair with suction sounds
14. Stays in chair with suction and drill sounds
15. With staff dressed up, leans back in chair
16. With staff dressed up, leans back in chair with suction sounds
17. Leans back in chair with suction and drill sounds
18. Leans back in chair with all sounds plus odor of dental cleaning agent

Hierarchy of Dental Procedure

19. With staff dressed up, leans back in chair and wears apron
20. Wears apron with all sounds
21. Wears apron with sounds and odor
22. Wears apron with sounds, odor and dental light
23. With staff dressed up, leans back in chair with apron on and opens mouth
24. Opens mouth with all sounds
25. Opens mouth with sounds and odor
26. Opens mouth with sounds, odor, and light
27. With staff dressed up, opens mouth and tolerates mouth being touched by toothette
28. Mouth is touched by toothette with all sounds
29. Mouth is touched by toothette with sounds and odor
30. Mouth is touched by toothette with sounds, odor, and light
31. Tolerates teeth being brushed by staff dressed in dental attire
32. Tolerates second adult dressed in dental gown
33. Tolerates second adult touching open mouth with toothette
34. Tolerates electric toothbrush being placed on teeth
Coping Strategies

• Exposure/shaping new skills
• Progressive relaxation, deep breathing
• Blocking aversive with alternative stimulation
• Modeling
• Behaviour rehearsal
• Reinforcement
• Cognitive Behaviour Therapy

Exposure/Shaping

• This is a graduated practice of introducing the individual to the experience.
• Each step should build on the previous step increasing the expectations and tolerance to the activity/experience
• Establish a baseline to determine what steps on the hierarchy the individual can complete successfully

* It is important to note this may take many practice sessions with many small steps

Progressive Relaxation Deep Breathing

Both exercises are used to help counter the physical anxiety indicators such as; rapid heart rate, shortness of breath, tense muscles etc.

Progressive Relaxation - Follows a system of isolating muscles (tightening and releasing) in predetermined order
Deep Breathing - Deep, slow methodical breathing
Both activities need to be practiced frequently in order to be generalized to high stress situations
Blocking

- Block some of the external stimulation which may increase the likelihood of the problem behaviour occurring

Examples:
- Listening to music on an iPod
- Self talk such as counting
- Video games in hand held
- Alternative scents to block
- Sun glasses to block lighting

Modeling

- Another "safe" person the individual trusts demonstrates the possible coping strategies both away from the experience and during the experience.
  e.g. Sit on the exam bed and practice relaxation exercises.

Behaviour Rehearsal

- Practice the routine (role play) in a "safe setting" or in the natural environment without following the complete procedure.
  This may include:
  - Setting up and running through preliminary activities before the procedure.
  - Cuing the individual what to do next.
  - Creating a script for the individual to follow.
Step 2
Operant Conditioning

• The consequences following a behaviour influence whether the behaviour will occur again in the future.

• The individual won’t try to avoid or escape the aversive expectation because the pay off for participating (positive reinforcement) is more valuable then escaping.

Using a Valuable Reinforcer

• Many individuals with a developmental disability do not understand the long term value of maintaining good health.

• The expectation is aversive to them and they don’t want to participate.

Reinforcement

• Reinforcement follows a behaviour or action and increases the likelihood a behaviour will occur in the future.
• Positive reinforcement offers something of value to the individual which increases the chances that person will use the behaviour again (in this case participate in an activity/procedure).
• Positive Reinforcement may/should be offered throughout the practice sessions and the value of the reinforcement should increase with completion of the entire process.
Pairing

- Increase a positive association between the individual and what was considered the aversive /person environment.

- The specialist profession secretary offer the reinforcement for completing the step rather than it coming fro the caregiver or support person.

Cognitive Behaviour Therapy (CBT)

- Is a alternative approach which holds some similarities and differences with traditional behaviour treatments.
- Cognition refers to belief, thought, attitude or perception.
- Therapists practicing CPT "help a client overcome his or her difficulties by getting rid of unproductive debilitating thoughts or beliefs and adopting more constructive ones". 1

CBT

The individual usually presents with
- Dysfunctional thoughts
- Draws a conclusion based on those thoughts
- Overgeneralization
- Magnification
CBT

Differences

CBT includes:

• Emphasis on cognitive restructuring
• Self directed

CBT

Common elements

• Both behaviour therapy and CBT have common elements and draw on each others approaches to offer the most effective intervention (strategies for behaviour change)
• In addition, “both approaches view the criterion for judging the effectiveness of any treatment is the amount of measurable improvement that occurs in the clients behaviour”  
  
  2 Martin and Pear

Conclusion

Desensitization to an aversive experience requires:

• A baseline of the current behaviour -what is currently happening hierarchy of activity paired with level of anxiety/fear
• A plan – what strategies are you going to use which best meet the needs of the individual and can be effectively carried out.
• Takes time – practice, practice, practice.
• Valuable reinforcer for completion of expectation which will maintain cooperative behaviour in the future.
References


- McKay, Davis, & Fanning Thoughts & Feelings Taking Control of Your Mood and Life, New Harbinger Publications c. 2003

- Martin and Pear, Behaviour Modification What It is and How To Do It 8th ed., Prentice Hall c. 2007