Post Traumatic Stress Disorder

&

Substance Misuse

Produced and Presented

by

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Famous Sufferers….

Samuel Pepys

following the Great Fire of London:

"..much terrified in the nights nowadays, with dreams of fire and falling down of houses"

Charles Dickens

following a train accident:

"I am not quite right within, but believe it to be the effect of the railway shaking."

Aspects of PTSD

- *The Theory of Shattered Assumptions* identifies three assumptions that influence our response to trauma:
  - The world is benevolent
  - The world is meaningful
  - The self is worthy

[Janoff-Bulman, 1992]

“…an abnormal response to an abnormal situation is normal behavior.”

Victor Frankel in *Man’s Search for Meaning*

Essential features of PTSD

- Intrusions and re-experiencing – *nightmares, flashbacks*
- Emotional numbing and avoidance – *suppressing thoughts, avoiding reminders*
- Hyperarousal – *anxiety, irritability, hypervigilance*

Emotional Responses

FEAR

ANGER

GUILT

SHAME

SADNESS

Cognitive Model of PTSD - I

PTSD sufferers perceive a serious current threat that has two sources:

- excessively negative appraisal of the trauma and/or its sequelae
- characteristics of trauma memories that lead to re-experiencing symptoms

Cognitive Model of PTSD - II

Symptoms are maintained by COGNITIVE and BEHAVIOURAL strategies that are intended to reduce the sense of current threat but actually prevent change in the appraisal or trauma memory and/or increase symptoms.

[Ehlers and Clark, 2000]

Dual Representation Theory – I
[Chris Brewin]

- Postulates that trauma memories are stored in a fundamentally distinct way from other memories.
- Re-experiencing occurs when trauma memories become dissociated from the ordinary memory system.
- Two memory systems:
  - VAM [verbally accessible memories]
  - SAM [situationally accessible memories]
- Recovery involves transforming memories into ordinary or narrative memories.

Dual Representation Theory – II
Neurophysiological Aspects

- **VAM**
  - Involves hippocampus
  - Disrupted by increased arousal
  - Memories are voluntarily retrievable
  - Data is encoded in temporal context
  - Integrated in autobiographical memory
  - Able to be communicated verbally
  - Primary and secondary emotional responses

Dual Representation Theory – III
Neurophysiological Aspects

- **SAM**
  - Involves amygdala
  - Enhanced functioning under extreme stress
  - Triggered involuntarily by situational reminders
  - Perceptual processing (sight, sound, touch, smell)
  - Stores data about bodily response
  - Memories difficult to communicate
  - Not necessarily updated by autobiographical information
  - Primary emotional response elicited

Amygdala

- Important role in emotional processing
- Primitive structure – fulfilled important survival function
- Phylogenetically its connections with other brain structures have become more complex [e.g. rats *versus* monkeys]
- Impacts on perception and expression of facial musculature, involved in freezing response, links with all major neurotransmitter systems, involved in reward and punishment pathways.

Comorbidity

- Lifetime prevalence rate of PTSD in substance abuse service clients is around 50%
- Point prevalence is 25 – 33%
- Treatment outcomes are consistently worse for clients with PTSD
- Unlike for other comorbid conditions, the self-medication hypothesis is supported. Mixed findings, but suggestion that alcohol use is associated with physiological arousal and other drug use with avoidance/numbing.
- Also strong evidence that in majority of clients the substance misuse is secondary to PTSD
- Remission from PTSD predicts better outcomes for substance misuse but the reverse is not true

Psychological Interventions - I

- Important to consider level of intervention:
  - Strategies to manage immediate risk and security issues. Consider:
    - Deliberate and accidental self-harm
    - Vulnerability due to lifestyle
    - Social support network
  - Strategies to improve coping skills
    - Problem-solving skills
    - Distress tolerance
    - Affect management
    - Increasing sense of safety
    - Reducing hopelessness

Psychological Interventions - II

- Symptom Management
  - Dealing with flashbacks
  - Normalisation
  - Psychoeducation
- Trauma-focused Therapy
  - Prolonged exposure
  - Cognitive restructuring

Factors Impacting on Treatment

- Current level of social stability and safety
- Capacity to deal with distress
- Attention and working memory – reduced capacity in the latter may predict less successful outcome of therapy (Brewin, 2003)
- Willingness and ability to develop trust
- Motivation to overcome avoidance

What does NICE say? (I)

- “For PTSD sufferers who are so severely depressed that this makes initial psychological treatment of PTSD very difficult (for example, as evidenced by extreme lack of energy and concentration, inactivity, or high suicide risk), healthcare professionals should treat the depression first.”

What does NICE say? (II)

- “For PTSD sufferers with drug or alcohol dependence, or in whom alcohol or drug use may significantly interfere with effective treatment, healthcare professionals should treat the drug or alcohol problem first.”

Points to Ponder - I

- To what extent does substance use interfere with emotional processing?
- We know that negative mood states account for about a third of relapses in substance misuse
- To what extent does substance use interfere with memory and attentional processes?
- Substances of choice tend to be depressants and we know that these substances have the potential to cause state dependent learning. There is evidence that alcohol can reactivate trauma memories that have been dormant for years – this has implications for older adults.

Points to Ponder - II

- Evidence that problem-solving and coping skills are emotionally driven in PTSD rather than by rational functioning of neocortex
- Important to overcome barriers to seeking treatment, including fear of emotional pain, shame and self-blame. These occur in the absence of substance misuse, so risk of amplification.

Treatment Rationale

- Following on from the Cognitive model of PTSD, the three essential elements of the disorder need to be addressed.
  - **Goal 1**: Modify the excessively negative appraisals.
  - **Goal 2**: Reduce re-experiencing by elaboration of the trauma memories and discrimination of triggers.
  - **Goal 3**: Drop dysfunctional behavioural and cognitive strategies.

Treatment Elements - I

Modifying excessively negative appraisals:

- *Consider initial PTSD symptoms and the reactions of other people after the event.*
- *Provide information*
- *Use of Socratic questioning*
- *Behavioural experiments – introduce assignments to help people "reclaim" their former lives by reinstating significant activities and social contacts [Sufferers often describe a sense of permanent change]*

Treatment Elements - II

Updating trauma memories:

People's recall of the trauma is often disjointed and incomplete.

- *Identify idiosyncratic appraisals of the trauma using "hot spots" in imaginal reliving or narrative writing.*
- *Identify evidence against these appraisals by providing "updating information" – e.g., outcome was better than predicted, other reasons why they or other people behaved in the way they did.*
- *Actively incorporate the updating information into the hot-spots – verbally, use of imagery, performing movements or actions incompatible with the original meanings.*

Treatment Elements - III

Reduce re-experiencing by elaboration of trauma memories and discrimination of triggers.

- *Imaginal reliving*
- *Writing a detailed narrative*
- *Revisiting the site*
- *Discrimination of triggers*

Treatment Elements - IV

Discrimination of triggers:

- *Identify when and where intrusions occur to identify triggers*
- *Break link between triggers and trauma memories:*
  - *Distinguish between "Then" and "Now"*
  - *Use triggers in session to provoke intrusions*
  - *Encourage use of strategies in natural environment*
- *Facilitate discrimination by getting client to do things that were not possible at the time, to move, to look at a photo that reminds them of their life **now**.*
- *Remind client that they are responding to a memory, not reality.*

Treatment Elements - V

Drop dysfunctional behaviours and cognitive strategies:

- *Illustrate how strategies are unhelpful (e.g., trying to suppress thoughts)*
- *Discuss pros and cons of using current strategies*
- *Drop or reverse strategies in behavioural experiments*