The Relationship between Trauma and Psychosis: A CBT perspective

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Trauma and Psychosis

Why does it capture such a lot of attention?

How far have we got in our understanding?
Trauma and Psychosis
Potential Relationships

- They are distinct disorders

- Trauma is a generic stressor triggering psychotic symptoms within biologically vulnerable individuals

- Psychotic symptoms may be a traumatic event

- PTSD symptoms and psychotic symptoms may be part of a range of potential responses to a trauma
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PTSD symptoms and psychotic symptoms may be part of a range of potential responses to a trauma.
Have people diagnosed with a psychotic disorder suffered more traumatic events than those who are not?
## Frequency of Trauma in SMI

<table>
<thead>
<tr>
<th>Author</th>
<th>N</th>
<th>Population</th>
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<td>Mueser (1998)</td>
<td>275</td>
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Bebbington et al. (2004)

- Data from second British National Survey of Psychiatric Morbidity
  
  \[ n = 8580 \]

- Definite or probable psychosis (n=60)
  
  - sexual abuse 34.5%
  
  - bullying 46.4%
  
  - violence in the home 38.1%
Bebbington et al. (2004)

- Odds ratios (CI)
  - sexual abuse 15.5 (8.2-29.2)
  - bullying 4.2 (2.3-7.8)
  - violence in home 8.9 (4.8-16.6)
Schizophrenia and PTSD
Co-morbidity Rates

Data from Uni of Reading / BHFT led trial

1 in 3 reach PCL cut-off

1 in 6 reach PTSD diagnosis
Schizophrenia and PTSD
Co-morbidity Rates

- Co-morbidity - 15-40%
  - Poor prognosis
    - (severe symptoms, substance misuse, hospital services)
Schizophrenia and PTSD
Blurred Boundaries

• High levels of PTSD and trauma symptoms in schizophrenia

• High levels of psychotic symptoms in PTSD?
PTSD-P

PTSD with psychotic features

- Veterans with PTSD more likely to hold delusional ideas (Morrison et al, 2007)
- Veterans with PTSD and psychotic symptoms had similar positive and negative psychotic symptom scores to those with schizophrenia (Hamner, 2000)
- 3 studies of PTSD cohorts found psychotic symptoms in 20-40%
Symptom similarity in PTSD and psychosis

**PTSD**

**Positive cluster**
- Intrusive images and flashbacks
- Hypervigilence to threat
- Impaired sleep

**Negative cluster**
- Emotional numbing
- Social isolation
- Impaired concentration

**Psychosis**

**Positive symptoms**
- Hallucinations and delusions
- Hypervigilence and paranoia
- Impaired sleep

**Negative symptoms**
- Emotional numbing
- Social isolation
- Impaired concentration

Slide developed by Dr Elaine Hunter
Psychosis and Intrusive Images

- Morrison et al. (2001)
- 35 individuals with psychosis
- 26 reported identifiable images
- 17 associated image with past event
Intrusions within PTSD

- Not always ‘neat and tidy’ memories
- Can be inaccurate representations of what actually happened.
Starting point

Based on clinical observation and limited research, trauma-related intrusions seem to play a role in some forms of psychotic presentation.
Research Questions

- If traumatic intrusions play a central role in psychosis, then are those vulnerable to developing psychosis also vulnerable to traumatic intrusions?

- Is there a common mechanism which may underlie the development of intrusions within both PTSD and psychosis?

- Which variables dictate the distinct presentation?
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Shared Vulnerability

Vulnerability to PTSD (Brewin et al 2000)
- Previous trauma
- Trauma severity
- Lack of social support
- Childhood abuse
- Family psychiatric history
- Race (minority status)
- Adverse childhood
- Social economic status
- Lack of education
- Female gender

Vulnerability to Schizophrenia
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Vulnerability to Psychosis

- Schizotypal personality
- Full continuum model
O-LIFE (Mason et al., 1995)

- Unusual Experiences

- Are the sounds you hear in your daydreams really clear and distinct?

- Do your thoughts sometimes seem as real as actual events in your life?
O-LIFE (Mason et al., 1995)

- Cognitive Disorganisation

- No matter how hard you try to concentrate do unrelated thoughts creep into your mind?

- Are you easily confused if too much happens at the same time?
Methodological Issues

- Investigating the impact of a trauma
- Use PTSD methodology
Holmes & Steel (2004)
Methodology

- Stressful-film paradigm
  - 12.5 minute video, 5 scenes
  - intrusion diary over 1 week
Methodology

Measures:

- Schizotypy (Unusual Experiences)
- Trait dissociation (DES)
- State dissociation (PDEQ)

Number of Intrusions (self-report diary for 1 week)

Holmes & Steel (2004)
Results

- High schizotypes vulnerable to increased levels of intrusions
- Stronger predictor than trait dissociation
- Increased frequency and variety
- Form of intrusions ……

Holmes & Steel (2004)
• Stressful-film paradigm

• Extreme high and low schizotypes

• High group predominantly spiritualists

• High Schizotypes more intrusions
  • More vivid, emotional, ‘life-like’
Marzillier & Steel (2007)

- Assessment of individuals on the waiting list for psychological treatment at a PTSD clinic (London & Oxford)

- 50 participants

- High scoring schizotypes associated with more frequent and more distressing intrusive memories
Steel, Mahmood & Holmes (2008)

- Assessment of individuals within one month after being involved in an RTA (London A&E)
- 45 participants
- High scoring schizotypes associated with more frequent intrusive memories
- A self-report measure of data-driven processing occurring at the time of the RTA (Ehlers)
Data Driven Processing/Perceptual Processing (Ehlers & Clark, 2000)

“trauma memory is poorly elaborated and inadequately integrated into its context in time, place, subsequent and previous information”
Data Driven Processing/ Perceptual Processing (Ehlers & Clark, 2000)

“trauma memory is poorly elaborated and inadequately integrated into its context in time, place, subsequent and previous information”

Higher levels of data-driven processing is associated with decreased level of ‘Contextual Integration’
Steel, Mahmood & Holmes (2008)

Traumatic Event

High Positive Schizotypy

Data-Driven Processing

Frequency of Intrusions
Why are high schizotypes vulnerable to trauma-related intrusions?
During trauma, information is processed differently – data-driven processing (Ehlers & Clark, 2000)

Information is stored in a manner that makes it vulnerable to being triggered as an intrusion.
Steel, Fowler & Holmes (2005)

- A failure to integrate incoming stimuli within a meaningful context (Hemsley, 1994)

- High schizotypy = baseline level of information processing which is poor in contextual integration/high in data driven processing

- Baseline + Impact of Trauma = Intrusions
A cognitive model of traumatic psychosis
(Steel, Fowler & Holmes, 2005)

Schizotypal Personality

Traumatic Event

Decrease in the ‘contextual integration’ of stimuli

Triggers

Frequency of Intrusions

Clarity of Intrusion-Event Relationship

Appraisal

Existing schizotypal beliefs

Emotion

Behaviour
A cognitive model of traumatic psychosis
(Steel, Fowler & Holmes, 2005)

- Schizotypal Personality
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Other supporting evidence

- More frequent intrusions of neutral stimuli (intrusive autobiographical memories) in high schizotypes (Jones & Steel, submitted)

- Weak ‘contextual integration’ in high schizotypes with neutral stimuli (associative learning task, Steel, Hemsley & Pickering, 2002).

- Psychotic appraisals of intrusive stimuli?
A cognitive model of traumatic psychosis
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Implications for interventions

- Need for detailed assessment of traumatic events and possible intrusive experiences
- Assessment of the appraisal of intrusions (Morrison)
- Intrusions as a memory (internal) - one possible explanation
- Psycho-education, monitoring
Evidence Based Interventions for Trauma & Psychosis
Evidence Based Interventions for Trauma & Psychosis

- The need for a definition of your target group
- Diagnosis
Current evidence base for treating PTSD within schizophrenia

- UK: case studies (Morrison, Turkington)
- Post Psychotic PTSD (Jackson)
- Kim Mueser: CBT for SMI
- Christopher Freuh: pilot study
Current NIHR funded clinical trial

- Target group, co-morbid (N=62)

- Intervention (Mueser)
  - Highly structured
  - Psycho-education, breathing retraining and cognitive restructuring
Current NIHR funded clinical trial

**Intervention**
- 16 sessions within 6 months
- Assessment as baseline, 6 & 12 months
- CBT conducted by NHS clinicians
Thank You

- David Hemsley
- Emily Holmes
- Til Wykes
- Suzanna Rose
- Kim Mueser
- Ben Smith