Working with the psychological sequelae of major physical trauma

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Greetings from Psychological Medicine!

Overview

• What is Major Trauma & who cares?
• Overview of the Major Trauma Centres
• Acute & longer term psychological problems
• Evidence-based psychological interventions
• Case discussion
• Vicarious traumatisation

The importance of major physical trauma

• Leading cause of death < 30 (Mackenzie et al., 1998)
• Occupies more beds than heart disease and four times more than cancer (Pickering et al., 1999)
• WHO predicts trauma will rank 3rd amongst the cause of disability worldwide in 2020
• “While the physical & pain consequences of injury contribute significantly to enduring disability after injury, psychiatric symptoms play a greater role” (O’Donnell et al. 2013)

Quality of life one year post trauma

Major Trauma – what is it?
What is major trauma?

- Injury severity scale (ISS) >16

<table>
<thead>
<tr>
<th>Region</th>
<th>Injury Description</th>
<th>AIS</th>
<th>Score</th>
<th>Top Three</th>
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<tr>
<td>Head &amp; Neck</td>
<td>Cerebral Contusion</td>
<td>3</td>
<td>9</td>
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<tr>
<td>Face</td>
<td>No Injury</td>
<td>0</td>
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<tr>
<td>Chest</td>
<td>Flail Chest</td>
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<td>16</td>
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<td>Abdomen</td>
<td>Minor Contusion of Liver</td>
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<td>25</td>
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<td>Complex Rupture Spleen</td>
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<td>Extremity</td>
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<td></td>
<td>External Injury Severity</td>
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Major Trauma mortality

- 20,000 major trauma people a year
- 800 a year in the East of England
- >5,000 deaths (3,000 in hospital)
- Poor care in UK identified 25 years ago
- 20% higher mortality than USA
- 60% substandard care
- Only 36% of necessary transfers occurred
- No change from government report in 1990s

What has been done?

- Implementation of major trauma networks
  - Reduce mortality by 15-20%
  - Save 450-600 lives a year
Lifesavers

- Overview of service

East of England Major Trauma Centre

- Full time Principal Clinical Psychologist
- Half time Consultant Psychiatrist
- Liaison with:
  - Substance misuse team
  - Older adult team
  - Emergency department team
  - Neuropsychology
  - Prosthetics
- Medical teams: Neurology, Orthopaedics, General Medicine, Maxillofacial, Plastics

Who experiences major trauma?

Types of Injury

Types of Injury

[Graphs and charts showing types of injuries]
Who do we see?

- Those who are predisposed to trauma
- People suffering from the immediate psychological consequences of trauma
- People experiencing the longer term consequences of trauma

Risk factors for acute stress reaction (ASR) & post traumatic stress disorder (PTSD)

- Previous trauma
- Interpersonal trauma
- Premorbid psychological difficulties
- Female
- Dissociation
- High level of perceived threat during trauma
- Mild traumatic brain injury
- Fatalities
- Younger people

Trauma types

- **Type 1 (simple trauma)**
  - Single traumatic event
  - Depressive and affective disorders more likely to develop
- **Type 2 (complex trauma, early developmental trauma, complex PTSD)**
  - Prolonged or repetitive trauma
  - Mood, psychosis, substance misuse and personality disorders more likely to develop


Major Trauma Centre (MTC) pathway

- Traged by Ambulance Service
- Neuro-Critical Care Unit (NCCU) & other Critical Care Units
- Rapid Access Acute Rehabilitation & medical wards
- Home, longer term rehabilitation, local hospital, residential care homes
Psychological service provision

Highly specialist and high intensity interventions
- Cognitive Therapy (Ehlers & Clarke)
- EMDR (Shapiro)
- Prolonged Exposure (Foa)
- Cognitive Processing Therapy (Resick)
- Guilt and shame-compassion work

Low intensity interventions - psycho-education and normalisation

Sharing of formulation & care plan with patient, staff and significant others

Assessment, formulation & treatment of acute mental health difficulties

Psychological trauma aware and sensitive services
- Assist with identification of psychological vulnerability and distress
- Cambridge University Health Partnership Trauma eLearning module
- Watchful waiting

ASR & PTSD (ICD-10)

- ASR: Diagnostic Criteria
  - Immediate and clear connection with stressor
  - Shows a mixed and changing picture
  - In addition to the initial state of “daze”, depression, anxiety, anger, despair, over activity and withdrawal may all be seen, but no one type of symptoms predominate for long.
  - Resolve rapidly (hours) if the stressor can be removed, if not the symptoms minimise in 3 days

- PTSD: Diagnostic Criteria
  - Arise within 6 month of traumatic event
  - Repetitive, intrusive recollection of the event
  - Daytime imaginary or dreams
  - Conspicuous emotional detachment
  - Avoidance of stimuli that may arouse recollection of trauma
  - Mood disorder
  - Behaviour abnormalities

Addenbrooke’s & CPFT eLearning

The module covers
- The importance of major trauma
- The different types of trauma that patients can have experienced
- It also explores the different pre and post major trauma psychological factors that can affect people’s psychological recovery
- The acute mental health challenges
- The longer term mental health challenges patients might face
- The evidence based intervention
- A section on how we look after ourselves when working with patients and families who have experienced major trauma

Acute mental health problems

- Suicide
- Keep safe
- Assess, diagnose, formulate & treat
- Liaise with medical teams & person’s significant others
- 12% general hospital suicides admitted to psychiatric hospital following attempted suicide

*Ho et al Hong Kong Med J 2004

Acute mental health problems

- Alcohol & illegal drug usage withdrawal
- Wernicke’s/Korsakoff’s
- USA major trauma admissions ~40% alcohol abuse
- Can be difficult to assess & gather information on
- Treatment
  - Benzodiazepines – reducing regime
  - Parenteral thiamine / Vit B complex

Lifesavers

- Person left on ward - what would you do?
Longer term psychological problems

What are the psychological sequelae of major trauma?

- Rank in order
  - Social phobia
  - Post traumatic stress disorder (PTSD)
  - Major depressive disorder
  - Substance misuse
  - Panic disorder
  - Generalised anxiety disorder (GAD)
  - Agoraphobia
  - Obsessive compulsive disorder (OCD)

What are the psychological sequelae of major trauma?

- Answers

Evidence based interventions

- Depression
  - In remission: Mindfulness Based Cognitive Therapy, Mild to moderate-guided self-help, CBT, behavioural activation & IPT
  - Severe depression: antidepressants & CBT or Interpersonal Therapy
- Generalised anxiety disorder
  - Low severity-guided self-help & group psychoeducation
  - Medium to high severity: CBT or applied relaxation or medication
- Agoraphobia
  - Prevention techniques: self-help booklets & group CBT
  - Treatment techniques: CBT (at varying levels of intensity)

National Institute for Clinical Excellence (NICE) (2005)

- Watchful waiting for one month post trauma but if overt symptomology or distress treat with CBT for Acute Stress Reaction
- Trauma focussed CBT for PTSD or EMDR
- Do not offer psychological debriefing or non trauma focused therapies

Prolonged Exposure

- Recommended as first line treatment by NICE (2005), Cochrane Review (Bisson & Andrew, 2007)
- Twenty four randomised control trials across range of populations
- A combination of imagined exposure & in vivo exposure has the strongest evidence base
Cognitive Processing Therapy (CPT)  
Resick & Schnicke (1992)  
• Originally developed for use with rape victims  
• Addresses both cognitive & emotional consequences of trauma  
• Combines a variant of exposure therapy and cognitive restructuring  
• Involves the patient producing a detailed, written narrative account

Cognitive Therapy for PTSD (Ehlers & Clark 2000)  
• The trauma memory needs to be elaborated & integrated to reduce intrusive re-experiencing  
• Appraisals of the trauma or its sequelae which maintain the current sense of threat need to be modified  
• Dysfunctional behavioural & cognitive strategies which prevent memory elaboration, exacerbate symptoms or hinder reassessment of problematic appraisals need to be dropped

NICE guidelines evidence update 2013  
• The treatment of PTSD  
• Early interventions  
• Single-session psychological debriefing within 3 days of a potentially traumatic event appears to have no impact on post-traumatic stress symptoms and psychological distress.  
• A brief trauma-focused psychological intervention (3 sessions) delivered to all in the period immediately following trauma may reduce the development of subsequent trauma symptoms more than no such intervention, though subgroups most likely to benefit have not been identified.  
• Trauma-focused psychological interventions in the period within 3 months of a trauma may be effective for prevention or acute treatment of PTSD

ASR and PTSD questionnaires  
• Acute Stress Disorder Scale (ASDS)  
• Stanford Acute Stress Disorder Scale  
• CAPS-2− Clinician Administered Post Traumatic Disorder Scale for DSM-IV  
• Davidson Trauma Scale  
• PTSD Checklist – Civilian (PCL)  
• Posttraumatic Diagnostic Scale (PDS)  
• Revised Impact of Event Scale

PTSD & vicarious traumatisation  
• Just as patients can develop PTSD from experiencing a trauma  
• Clinicians can also experience vicarious traumatisation by repeated exposure to working with trauma

DSM-V (May 2013)  
• The exposure must result from one or more of the following scenarios, in which the individual:  
  • directly experiences the traumatic event;  
  • witnesses the traumatic event in person;  
  • learns that the traumatic event occurred to a close family member or close friend (with the actual or threatened death being either violent or accidental); or  
  • experiences first-hand repeated or extreme exposure to aversive details of the traumatic event (not through media, pictures, television or movies unless work-related)
Definition of vicarious trauma

- Repetitive invasion of another’s trauma
- Affects the sense of belonging, relationships & perspective on life
- Negatively alters personal feelings, beliefs, values, & judgments
- Affects sense of survival, safety & security, cognitive functioning, sense of love & belonging, self-esteem & self actualisation (United States Department of Justice, 2007)

Potential early warning signs of vicarious trauma

- Intrusive images & thoughts of trauma
- Hyper-vigilance to potential trauma
- Avoidance of potential trauma
- Strong emotional reactions
- Substance misuse
- Irritability
- Chronic poor time keeping or over-working
- Exhaustion
- Hopelessness
- Inability to balance objectivity & empathy
- Sleep disturbances

Examples of changes in thoughts & behaviour

- Thoughts
  - “every car journey I take will end in an accident”
  - “everybody is dangerous”
  - “the world is full of trauma”
- Behaviour
  - Avoidance of driving
  - Not forming new relationships
  - Cutting self off from the world

Taking care of yourself

- At work
  - Peer support, team support
  - Appropriate training
  - Good clinical & professional supervision
  - Mixture of trauma with other clinical work
  - Value self & others
  - If required access occupational counselling services

- At home
  - Boundaries-Leaving work at work, taking holidays
  - Exercise and relaxation
  - Talking with friends and family (without breaking confidentiality)
  - Looking after yourself
  - Monitoring your alcohol intake
  - Limit exposure to potentially traumatic media
  - Access talking therapies through GP

Clinicians’ pressures

- Service requirements
- Empathetic & understanding
- Clinical decisions
Thank you for listening & your participation!

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