PTSD

Reacting to the London Bombings

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Aims

- To develop an understanding of the effect of traumatic events
- To explore developmental considerations of PTSD in children

Outline

- Normal Post-Traumatic Reactions
- Types of Traumatisation
- Advice for parents and carers
- Diagnostic criteria (ASD / PTSD)
- Symptoms
- Developmental considerations
- Treatment issues
- Assessment issues

Immediate Reactions Following Traumatic Incident

- Disbelief
- Disorientation
- Fear
- Feeling time is slowed down
- Feeling numb or disconnected
- Feeling helpless or irrationally failing to avoid danger

A Normal Reaction to An Extreme Event

- Strong emotions: fear, horror, sadness, disbelief, confusion, anger / irritability
- Nightmares, Intrusions
- Fear of separation from parents
- Tearfulness
- Avoidance of reminders
- Sleep and concentration difficulties
- Being more alert to danger / Feeling 'jumpy'
- Developmental regression
- Repetitively re-creating the event through play

Direct and Vicarious Traumatisation

- "*Direct personal experience of an event that involves actual or threatened death or serious injury, or other threat to one's physical integrity; or witnessing an event that involves death, injury, or a threat to the physical integrity of another person; or learning about unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associate.*"
  (American Psychiatric Association, 1994, p.424)

- The definition encompasses the concept of *vicarious traumatisation* or *secondary traumatisation* (being confronted by serious injury to others) which can occur through personal reports and news.

Advising Parents / Carers On Helping Children Affected By Trauma

- Stabilise their environment
  - Make the child feel safe
- Allow the child to express their concerns
- Allow the child to display their emotions
  - Can be normalised by the parent's own expression
- Construct a narrative
- Return to the topic as required by the child
- Supervise the child whilst watching the news
- Offer support, affection, and time to the child

Constructing a Narrative

- A coherent story corrects misunderstandings, helps the child comprehend the event, and structures their discussions with others
- Stories should:
  - Be honest
  - Be age-appropriate
  - Have accurate themes
  - Make sense
  - Include accurate appraisal of risk (if appropriate)

Adolescents

- Despite perceived maturity, reassurance is still required
- Focus on feelings rather than graphic details
- Supervise them when watching the news
- Talk directly with them about their perceptions of the bombings and answer questions truthfully

ASD or PTSD

Acute stress disorder (ASD)

- Criteria:
  - within 4 weeks of exposure to trauma
    - dissociative symptoms
      - Depersonalization
      - Derealization
      - Dissociative amnesia
    - Re-experiencing trauma
    - avoidance of reminders of trauma
    - anxiety/arousal

DSM-IV criteria for PTSD

- A. Exposure to traumatic event
  - Person responds with fear, helplessness, and/or horror
- B. Persistently re-experiencing of event
- C. Avoidance of trauma and emotional numbing
- D. Increased arousal (e.g. sleep disturbance, hypervigilance, irritability, exaggerated startle response)
- E. Duration > 1 month
- F. Significant distress/impairment

Typical symptoms associated with PTSD 1

- Re-experiencing:
  - Distressing images or thoughts of the incident.
  - Terrifying dreams
  - Repeated and intrusive flashbacks during which the trauma is replayed often at full emotional intensity

Typical symptoms associated with PTSD 2

- Avoidance:
  - Persistent avoidance of stimuli associated with the trauma. Stimuli could include people, places or activities, or thoughts and feelings that remind a person of the trauma.
  - The avoidance could also take the form of a general numbing of responsiveness. Feelings may seem numbed or nonexistent.

Typical symptoms associated with PTSD 3

- Arousal or anxiety
  - People who have experienced trauma may have increased arousal, feel restless and agitated, angry and irritable, and may have sleep disturbances
  - They may also startle very easily, or have an excessive fear reaction to unexpected stimuli such as loud noises

Typical symptoms associated with PTSD 4

- Dissociation
  - Depersonalisation: feeling cut off from oneself or the environment
  - Derealisation: a marked sense that one and the world around one is unreal
  - Dissociative amnesia: specific inability to remember important aspects of the traumatic experience

Developmental Considerations

- "Emotional numbing" may be difficult to elicit in school children
- Alternative criteria:
  - Re-enactment play
  - Social withdrawal
  - Loss of developmental skills / developmental regression

Model of 9/11

Longitudinal National Study - Reactions to 9/11

USA Metro/Rural: 9/11 related PTSD symptoms, avg 5 pos

Before attacks	< 2 %
2 months	17 %
6 months	5.8%

Silver, JAMA 2002 N = 4449

Secondary trauma via TV and other media correlated to PTSD symptoms, 60% witnessed via live TV.

Pfefferbaum 2003; Rushing & John-Baptiste 2003

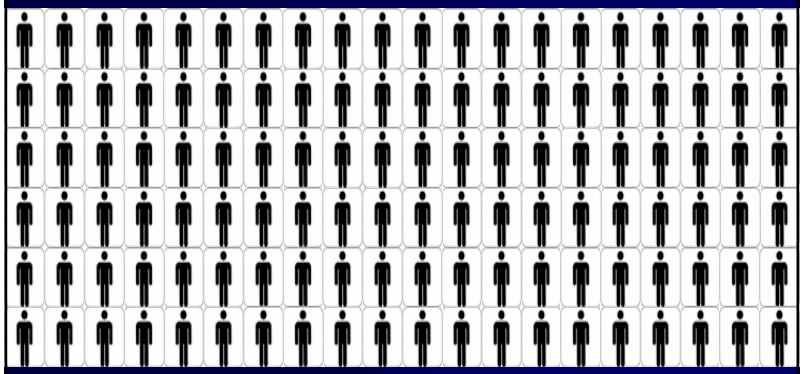
Active coping in immediate aftermath was protective

Silver, JAMA 2002

Disengaging from active coping increased traumatic effect as in Breast CA, Prostate CA, HIV+

Perczek 2002, Cancer

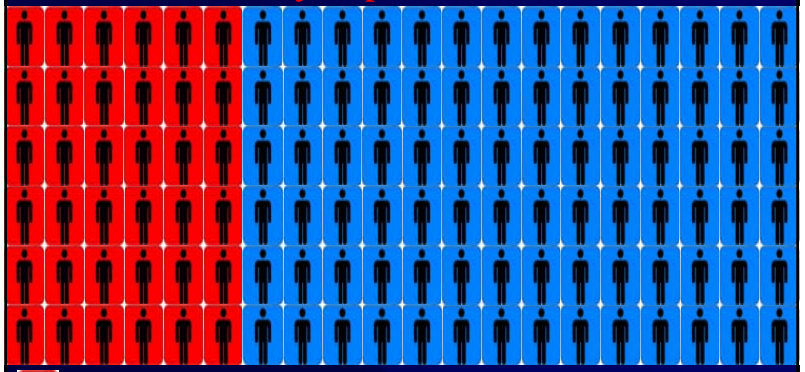
NYC adult population = 6,068,009



represents approximately 51,000 people

Galea Nov 2003

Residents directly vs not directly affected by September 11 attacks



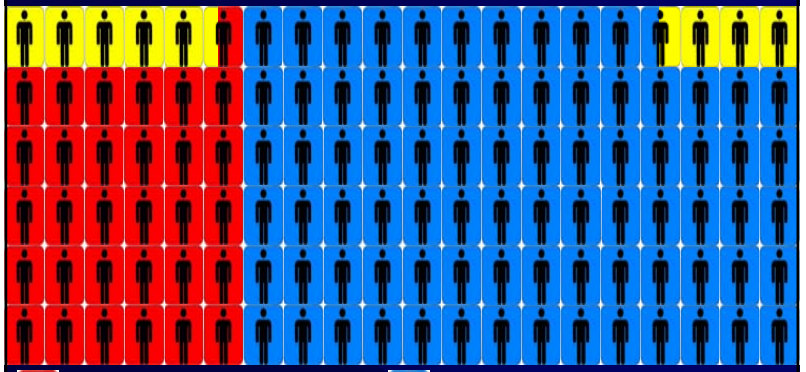
directly affected by September 11 attacks

not directly affected by September 11 attacks

represents approximately 51,000 people

Galea Nov 2003

PTSD 6 months after September 11



directly affected by September 11 attacks

not directly affected by September 11 attacks

PTSD since September 11

Galea Nov 2003

London Bombing 7th July 2005

Mass Casualty / Terrorism

Treatment Targets

Therapeutic Interventions

Effects of Mass Casualty

- PTSD, Major Depressive Disorder, Generalized Anxiety D/O, Panic D/O
- Nonspecific distress
- Health problems / concerns
- Chronic problems in living
- Psychosocial resource loss
  social support, self efficacy, optimism, perceived control
- Positive Adaptation
  growth, altruism, activism, creativity, empathy

Norris 2002

Functions to Protect and Respond to Public Psychological Health

1. Basic resources – food, shelter, communication, transportation, and medical services
2. Interventions and programs to promote individual and community resilience
3. Surveillance for psychological consequences
4. Screening criteria for individuals
5. Treatment for acute and long-term effects of the trauma

Functions to Protect and Respond to Public Psychological Health

6. Human Services - contribute to psychological functioning reuniting families, child care, housing, job assistance
7. Risk Communication, dissemination of information
8. Training of service providers to respond. Prepare and protect them against psychological trauma
9. Capacity to handle large increase in demand for services - "Surge Capacity"
10. Case finding to locate individuals who need MH services but are not utilizing conventional means; including the underserved, marginalized, and unrecognized groups of people

Vulnerable Populations

Predictors of psychological distress post terrorist event:

Consequences are related to the quality and extent of exposure - being a victim, watching the attacks, talking on the phone with someone who was lost
Silver 2002; Schlenger 2002

Female gender is associated with worse short-term outcomes Silver 2002

Weak or deteriorating psychosocial resources
Norris et al, 2002

Those with pre existing physical illness Shlev 2001
or mental Illness Yehuda 2002

Vulnerable Populations continued

Predictors of psychological distress post terrorist event:

Prior exposure to violence and trauma (Veterans)
Hoven 2002

Hispanics and other immigrant populations, including refugees Galea et al. 2002

School aged children Pfefferbaum 2003

Middle aged and young adults are at greater risk than older adults (contrary to popular belief)

First responders - unique exposure & risk
Beaton & Nemuth, J Traumatology 2004

Individual-Level Risk Factors for Poor MH Outcomes:

- **Trauma/Stress** Severe exposure, injury, threat to life, extreme loss, disrupted community, high secondary stress
- **Characteristics** Female gender, age 40-60, no experience in coping techniques, ethnic minority, low SES, prior psych hx
- **Family Context** Adults with children, female with spouse, child with dysfunctional parent
- **Resource Context** Low belief in ability to control outcomes deteriorating social resources

Norris 2002

PTSD in Severely Mentally Ill

- **Higher rates in**:
  - Young
  - White
  - Homeless
  - Unemployed
- **More common with hx of:**
  - Major mood disorders
  - Medical ills / high primary care utilization
  - Recent psychiatric hospitalization
- **Consequences for Severely Mentally Ill:**
  - Increased -
  - medical comorbidity
  - use of health services and MH services
  - substance abuse
  - alcohol use
  - global level of social dysfunction

Trauma Exposure & Physical Health

Medically Unexplained Physical Symptoms - MUPS

Self reported – symptom complaints
Ground Zero syndrome / respiratory

Physician reported diagnoses –

Abnormal Laboratory tests
Low birth weight infants
Mortality (cardiac)

Loss of routine medical care: home health care, O2, meds, chemo, chronic medical conditions worsened

Au der Heide 2002
Green & Kimerling (in press)
Schnurr & Jankowski, 1999
Sabatino, JAHA 1992

Early Intervention to Reduce:

Acute Stress Disorder ASD
Post Traumatic Stress Disorder PTSD
Depression
Panic Disorder
Substance Use Disorders
Physical Health problems
Unexplained somatic symptoms
Complicated bereavement reactions
Anger dyscontrol / Family violence
Regression of childhood developmental progression
Sleep Disturbances
Physiological arousal
Anxiety / Fear
Functional disability

Watson 2003
Ursano 2003

Therapeutic Interventions

- Psycho – education
- Anxiety management
- Supportive Therapy
- Cognitive Behavioral Therapy CBT
- Critical Incident Stress Management CISM
- Pharmacological intervention for acute stress management, depression

MH Screening

- PTSD more likely when:
  Panic attacks during / shortly after terrorist event measured by elevated heart rate and low cortisol level Shalev 1992, Tucker/Pfefferbaum 2000, Yehuda 2002
- Depression more likely when:
  Panic attacks, job loss, death of friend or relative
  Decrease in social support in prior 6 months
- Use data to provide early and better care
- Caution and sensitivity are critical in screening to avoid pathologizing

Impact Event Scale Revised IES-R
Stanford Acute Stress D/O Questionnaire SASRQ

Critical Incident Stress Debriefing

Emotional processing through discussion of the experience, grief model

Normalization of stress reactions

Multiple Reviews: Rose, Cochran Review 2001; Van Emmerik, Lancet 2002; Everly, Psychiatric Quarterly 2002; McNally APS 2003

Debriefing is ineffective and can be harmful
Retraumatization

Confounds:

Not operationally defined
One on One vs Group debriefing
Mandated vs Voluntary
No RCT's conducted with mass violence populations

Critical Incident Stress Management CISM

- Pre Crisis training
- Informational briefings, "town meetings"
- "Defusing"
- One on One and Family crisis counseling
- Screening and treatment referral mechanism

CISM used by Uniformed Services (DoD, Fire, Police)

Cognitive Behavioral Techniques CBT

- Strongest empirical results
  4 of 5 RCTs found clear superiority of CBT vs supportive counseling or controls
  Bryant in press, Ehlers Biol Psy 2003, Foa 1995
- 4 – 5 sessions, psychoeducation, anxiety management, cognitive restructuring, exposure
  NCPTSD
- Exposure techniques may be contraindicated in early phases, other CB techniques may be effective
- EMDR - no RCTs demonstrated effectiveness within 4 weeks of exposure NCPTSD

Pharmacotherapy

- Imipramine: low dose significant reduction in ASD symptoms Robert 1999
- Propanolol: reduction in conditioned response to trauma stimuli Pitman 2002
- Prazosin: reduction in nightmares Raskind 2002
- Benzodiazepines: widely used after 9/11 for anxiety No evidence of PTSD protective benefit
- SSRI's: first line drugs for PTSD
- Risperidone: 5 days post-trauma associated with decreased sleep disturbance, nightmares, flashbacks, hyperarousal Stanovic 2001
- Children: No medication RCT's

CBT Treatment Targets

- Reduce fragmentation of trauma memory
- Modify misappraisals of the trauma and PTSD symptoms
- Reduce dysfunctional coping strategies (cognitive and behavioural avoidance)
- Modify maladaptive beliefs of parents (re: trauma and sequelae); recruit parents as co-therapists

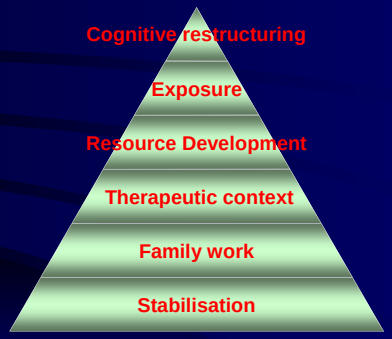
Treatment: General issues

- Important elements of most therapies are:
  - Establish a trusting therapeutic relationship
  - Educating clients about the process of coping with trauma
  - Stress-management training
  - Encouraging clients to re-experience and integrate the traumatic event into their lives and self-schemas

Treatment for Children

- Be playful
- Use creative methods e.g. drawing / games
- Focus on rapport building
- Don't record sessions for younger children
- Make it enjoyable

Treatment



Treatment for Children 1

- Under 5 years old
  Stabilisation through family work
- ~4-5 years old
  Create a narrative
- 5-8 years old
  Narrative and Behavioural techniques
- 8+ years old
  Cognitive Restructuring

NICE Recommendations

- 'De-Briefing' should NOT be given to all individuals who experience a trauma
- ~4x 90 min sessions should be offered within 1 month if severe PTSD symptoms
- ~8-12 sessions for chronic PTSD
- Drug treatments should not be prescribed
- Trauma-focussed psychological interventions are the only recommendation

Assessment

- What to assess?
  - Pre-morbid functioning
  - Description of event
  - Child's reactions (broad based)
  - Memory hotspots (emotive memories)
  - Misappraisals of trauma and symptoms
  - Current coping strategies (Maintaining safety behaviours)
  - Parents reactions and coping

Treatment

- Education, normalisation, rationale
- Activity scheduling / Reclaiming life
- Imaginal reliving (Exposure)
- Cognitive Restructuring
- Reliving + Restructuring

Reliving / Exposure

- First person
- Present tense
- All senses
- Look for hotspots
- Reduces fragmentation of memory
- Sometimes sufficient

Mental Health and Terrorism Summary