Assessment of Trauma Related Disorders in Compensations Settings

Prof AC McFarlane

Head of the University of Adelaide Node, The Centre for Military and Veterans Health.

The Challenges

- What is an acceptable level of function for a disorder?
- Need for an acceptable standard of diagnosis
- Need for scientifically based decision making by claims managers
- Need to ensure implementation of evidence based treatment

Trauma in the Workplace

- Environments where trauma is a regular occurrence
  - » Police
  - » Fire
  - » Ambulance
  - » Banks
  - » Hospitals
  - » Prisons
  - » Security companies
  - » Military
- Environments where trauma is infrequent
  - » Transport industry
  - » Mining
  - » Fishing
  - » Agriculture
  - » Heavy industry
  - » Any workplace

What is a traumatic event?

- DSM IV definition is the benchmark
- The causal role is more generally accepted in the courts
- Less stigmatized than other causes
- Over use of the concept
  - » Bullying
  - » Teachers stress

Stressor Criterion for PTSD

A: The Stressor Criterion

The person has been exposed to a traumatic event in which both of the following were present:

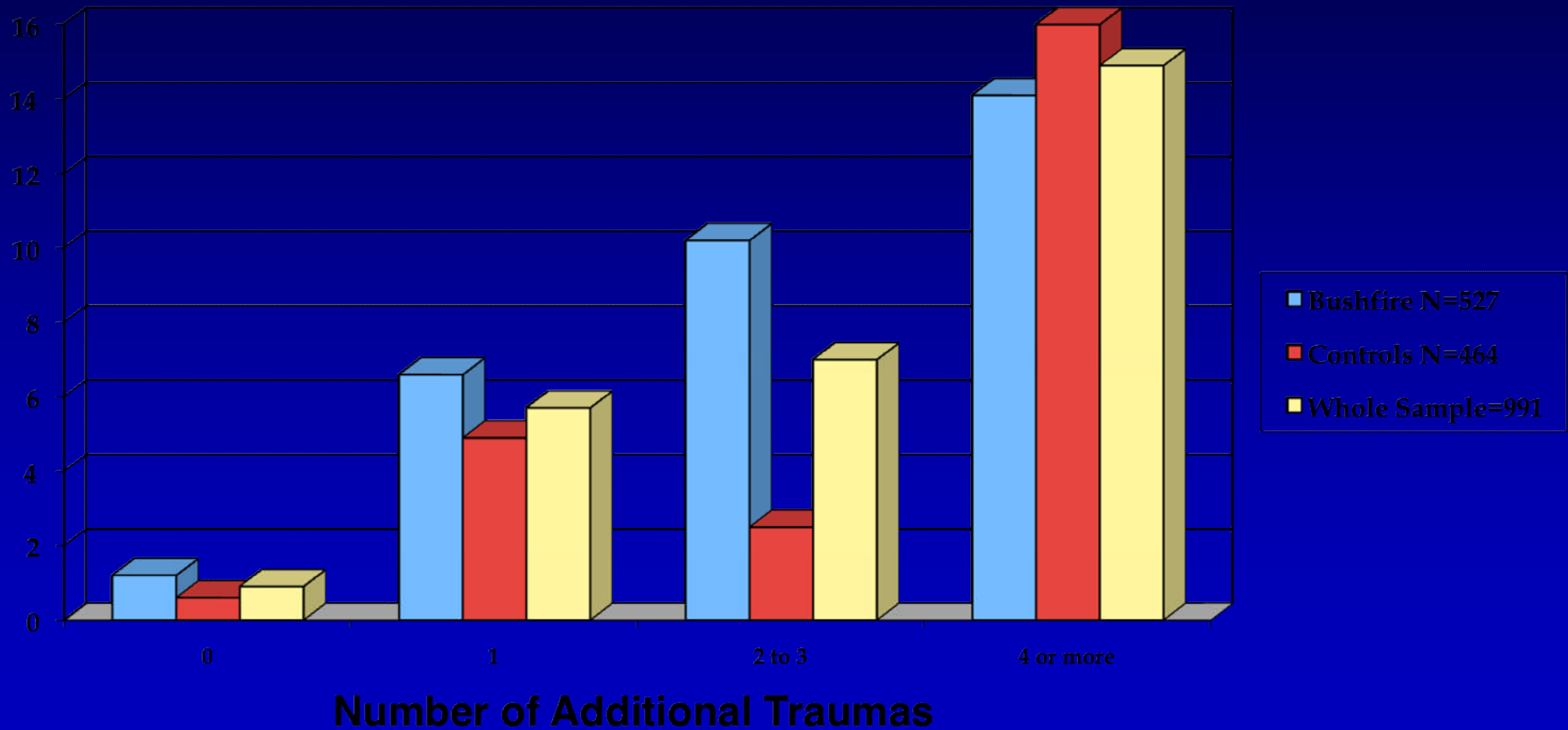
A1: The person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others

A2: The person's response involved intense fear, helplessness, or horror

Principles of Toxicology

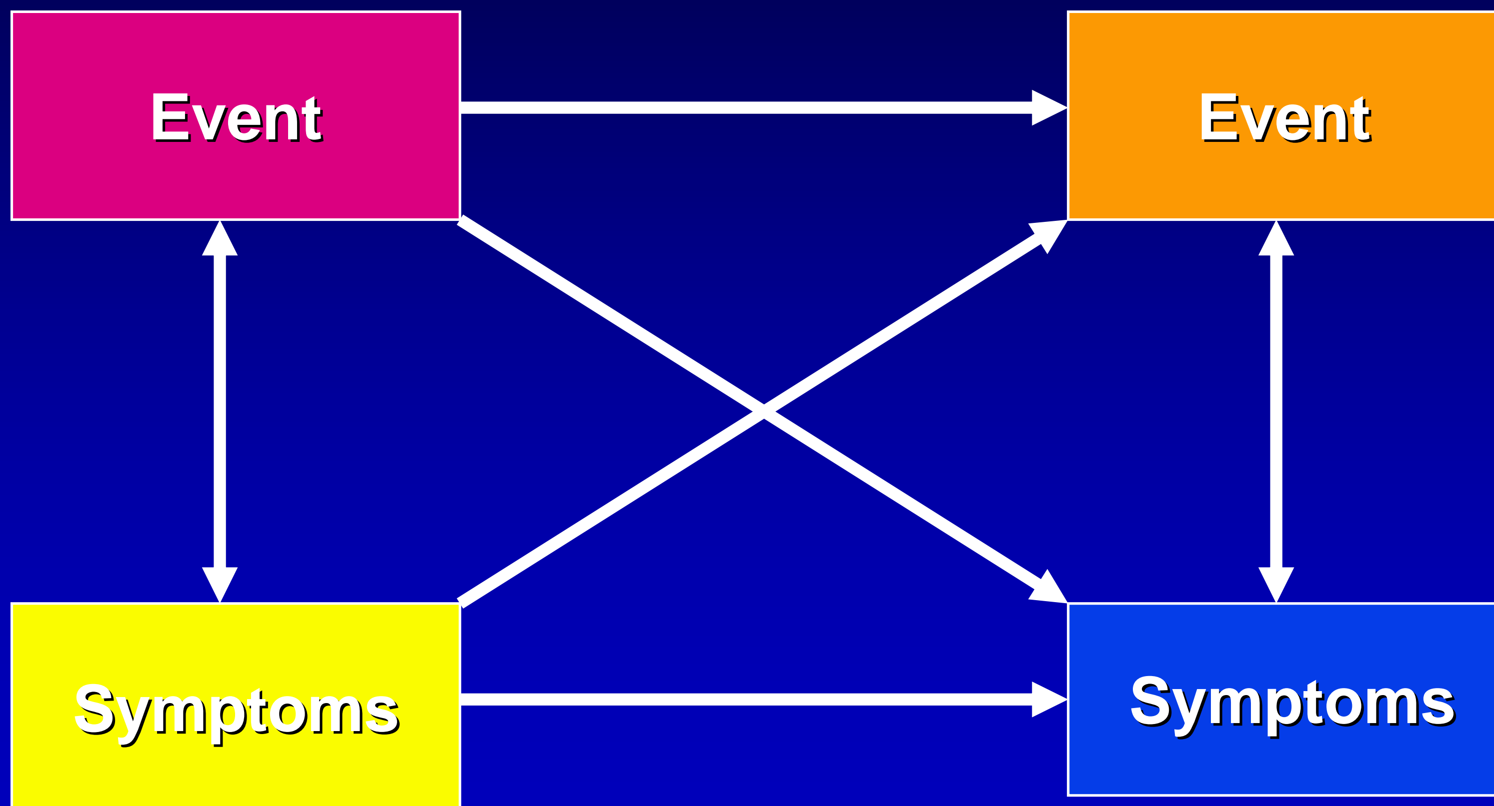
- Level of exposure above which disease emerges
- Monitor individual exposures
- Mitigate the risk of exposure in the industry
- Have protection strategy for individuals
- Illness demands removal from the exposure to the toxin and put the individual in other roles

Risk (%) of Developing PTSD by Increasing Number of Traumas



Types of Stresses

- Hassles
  - » Administrative
  - » Controllability of workload
- Day to day life events
  - » divorce
  - » financial strain
  - » Illness in family
- Traumatic events



Time 1
Time 2
Event
Event
Symptoms
Symptoms

Characteristics of Life Events

- Dependent v's independent
  - » Could this be a consequence of the individual's state of mind
- Attribution
  - » Causal beliefs as determinants of behaviour
- Time window of effect
  - » 6 month effect of day to day stresses
  - » Prolonged window of effect with traumatic stresses
- Sensitization v's hardening
  - » Kindling v's resilience

Occupational Stresses

These can be caused by psychiatric disorder as well as being causal

- Supervisor relationships
- Group morale
- Administrative problems
- Workload
- Shift duties
- Interpersonal conflict

Epidemiology

- Prevalence of psychiatric disorders in the workplace
  - » Remarkably little data
  - » Military is the main source
  - » Disaster affected populations

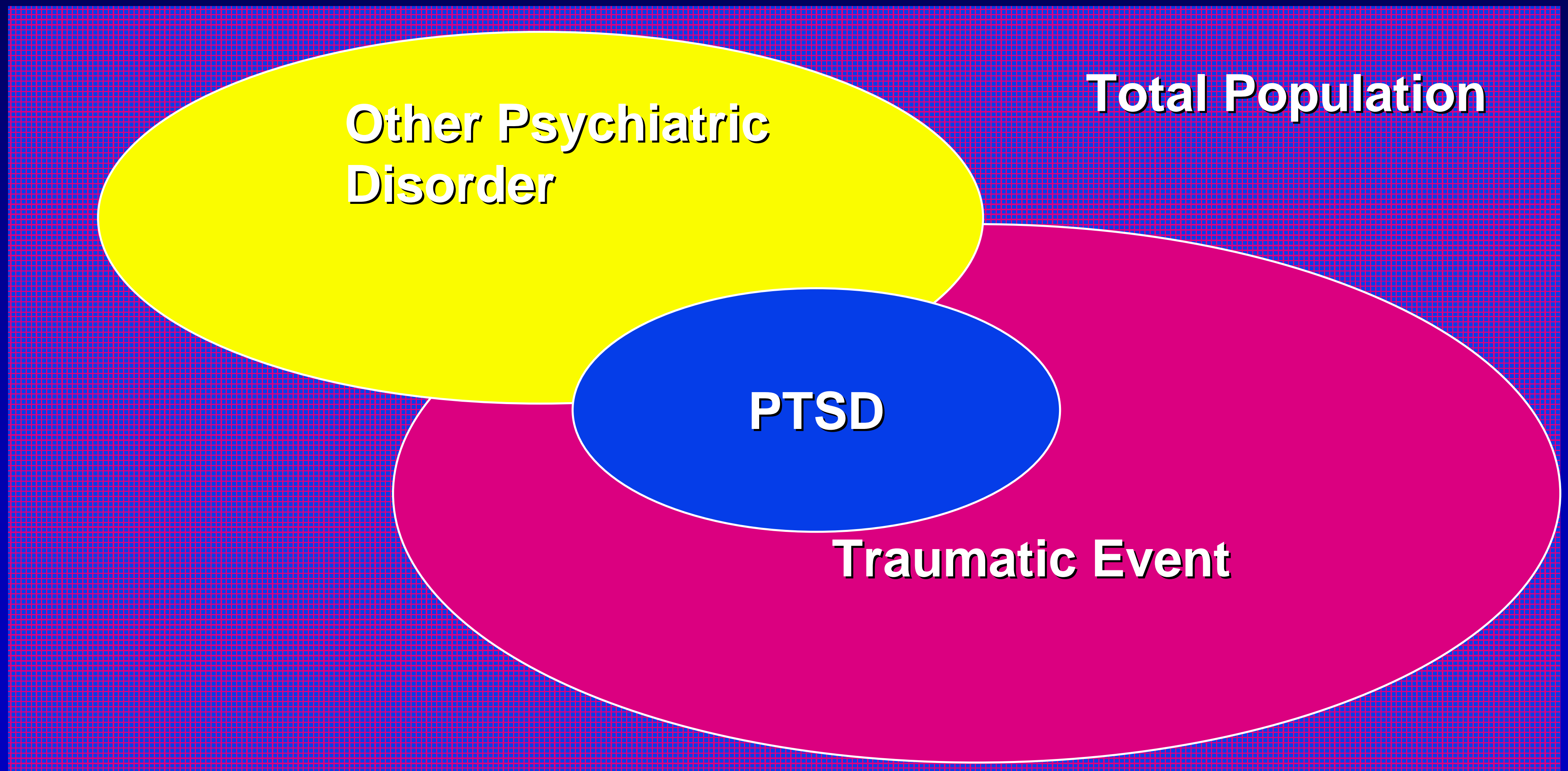
2007 ABS National Epidemiology Survey

- 8,841 people - 60% response rate
- Over 16 years - life time and 12 month prevalence
  - 45% had a life time disorder
  - 20% 12 month prevalence
- 26% of young adults (16-24)

12 month prevalence

- Anxiety disorders 14.4%
- Affective disorder 6.2% - Depressive episode 4.1%
- Most common disorder
  - PTSD 4.6%
- Substance Use Disorder 5.1%
  - Alcohol harmful use 2.9%
  - Alcohol dependence 1.4%

The Life-Time Risk of Psychiatric Disorder



History and Assessment

- Full employment history
- History of trauma exposure but not exclusively
- Detailed history of symptoms and longitudinal course
- Management of stress exposure and interventions by employer
- Other work place stresses and issues
- Past history of psychological treatment
- History of physical health complaints

Thresholds of reporting

- Psychologisers
- Somatisers
- Normalisers
- Problems of unitary thresholds of detection
- ECG recordings have very little relationship with reported palpitations
- Somatisers are unable to separate relevant and irrelevant
- Very little difference in 24 hour monitoring of arousal in those with anxiety disorders from controls

Critical Assessment Issues

- Definition of problem
  - » Story of what happened v's the reaction
- Importance of assessment of phenomenology
- Meaning to the individual
  - » The present in the context of the past
- Somatization

Traumatic Event

- Nature of experience
- Anticipate likely triggers
- Meaning and self perception of response
- Behavioural reaction to event
- Response of employer
- Physical consequences

History of trauma

- Mechanics and proprioceptive features of experience
- Acute perceptions of interpersonal and physiological reactions
- Environmental interaction at the time
- Nature of the emotional reaction
- Acute treatment experience

DSM-IV Criteria for PTSD

B: Re-experiencing

The traumatic event is persistently re-experienced in one (or more) of the following ways:

1: Recurrent and intrusive distressing recollections of the event, including images, thoughts or perceptions

2: Recurrent distressing dreams of the event

3: Acting or feeling as if the traumatic event were recurring

4: Intense psychological distress on exposure to reminders

5: Physiological reactivity on reminders

Intrusion Phenomena

- Pain as a traumatic memory
- Kinaesthetic sensations
- Sounds and smells
- Images of the accident and injury
- The treatment environment
- Death or injury of others.

The Nature of Triggers

- Provoke the traumatic memory structure
- Real or symbolic similarity with some aspect of the traumatic event
- In a range of sensory dimensions
- May be interpersonal in nature
- Conscious awareness is often lacking
- Awareness minimised by avoidance

Avoidance and estrangement

- Avoidance of behaviours or places
- Avoidance of thoughts and feelings
- Psychogenic amnesia
- Social withdrawal
- Loss of sense of pleasure
- Emotional numbing
- Foreshortened sense of the future

3 symptoms required

DSM-IV Criteria for PTSD

C: Avoidance & Numbing (2 – "passive")

3: Inability to recall an important aspect of the trauma

4: Markedly diminished interest or participation in significant activities

5: Feeling of detachment or estrangement from others

6: Restricted range of affect

7: Sense of foreshortened future

Avoidance

- Emotional constriction as a method of coping
- Interferes with the development of goals in treatment
- Problem tolerating the worsening of symptoms during treatment
- Poor attendance - Self motivation and compliance

DSM-IV Criteria for PTSD

D: Persistent Hyperarousal

Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:

1: Difficulty falling or staying asleep

2: Irritability or outbursts of anger

3: Difficulty concentrating

4: Hypervigilance

5: Exaggerated startle response

DSM-IV Criteria for PTSD

E: Duration

Duration of the disturbance (symptoms in Criteria B, C, and D) is more than 1 month

F: Impairment

The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning

Indirect manifestations of Trauma

- Increased alcohol use
- Interpersonal and/or family conflict
- Social withdrawal
- Depression
- Somatic distress
- Performance deterioration
- Increased sick leave

Somatic distress

- Accounts for over one third of general practitioner and specialist referrals
- Multiple aetiologies -
- Seized upon by sub-specialists rather than generalists

Saw doctor about physical health complaint

	PTSD (n = 77)	No PTSD (n = 70)	
Respiratory	19%	4%	6.69 *
Musculoskeletal	39%	22%	4.00 **
Cardiovascular	14%	9%	0.52
Gastrointestinal	13%	6%	1.06
Dermatological	17%	9%	1.46
Urological	1%	4%	0.16
Headaches & funny turns	17%	9%	1.45

* P<0.05 **P<0.01

The issue of memory

- PTSD is the disorder most associated with pain
- Increased complaints of physical symptoms in many populations
- Importance of somatosensory memory

McFarlane et al (2008) Psychosomatics

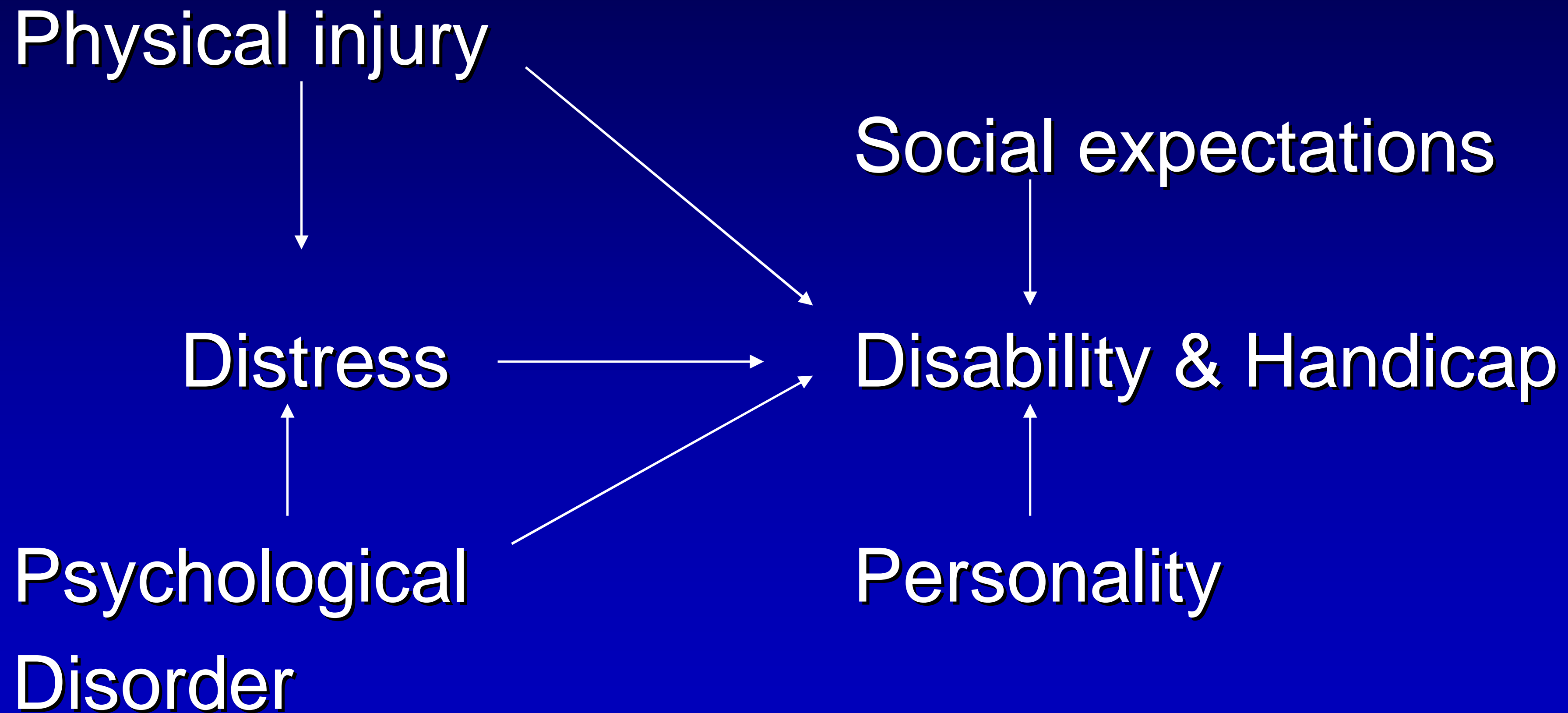
Distinct Syndromes

- Chronic fatigue
- Irritable bowel
- Multiple chemical sensitivities
- Fibromyalgia
- Post concussion syndrome
- Whiplash
- Post infectious fatigue

Shared symptoms

- Headache
- Poor concentration
- Fatigue
- Muscle pain
- Impaired memory
- Unfreshing sleep

Multiple Causes of Handicap

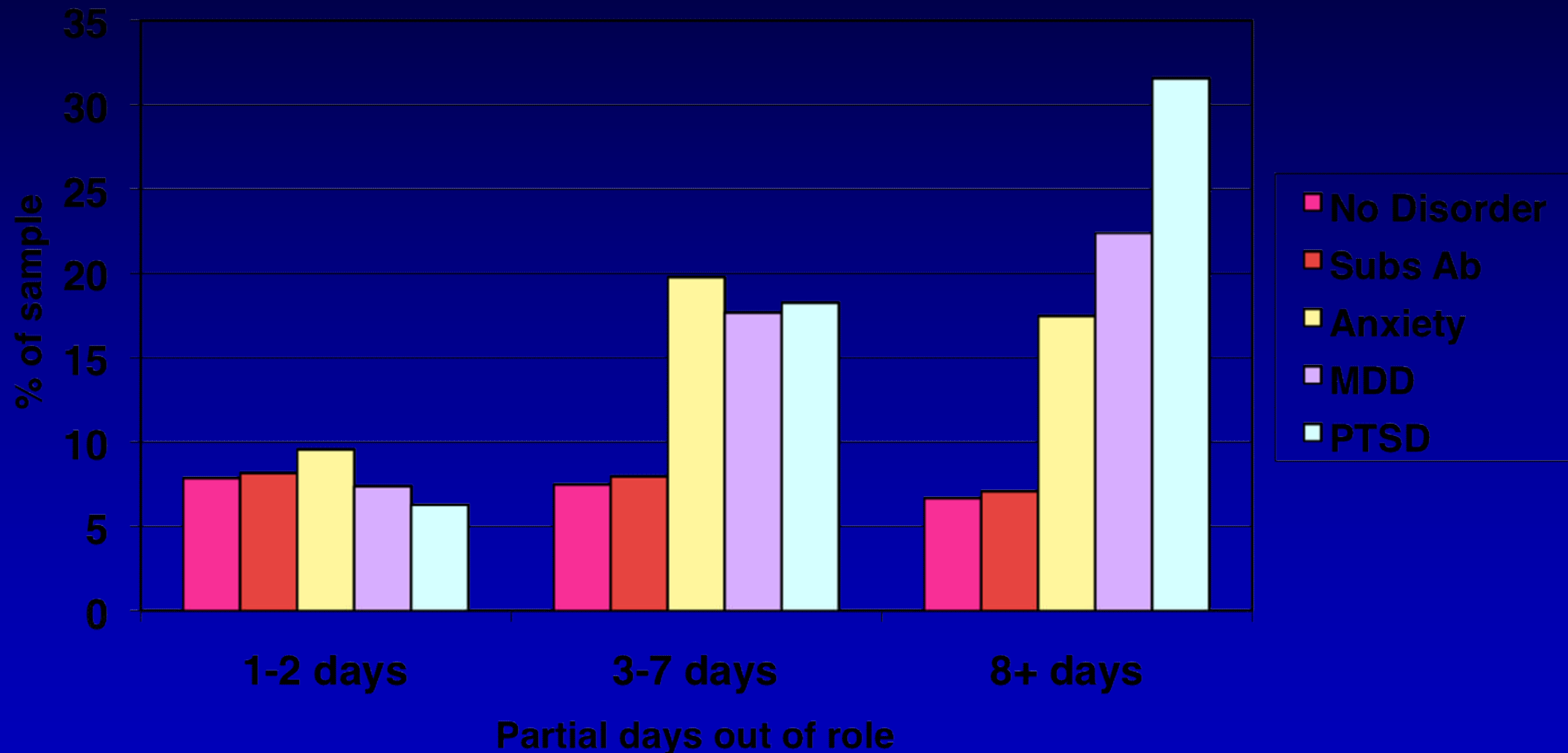


Objective Assessment

- Separation of the organic causes of symptoms
- Not a process of exclusion of the physical
- Both need to be assessed independently
- Often co-exist

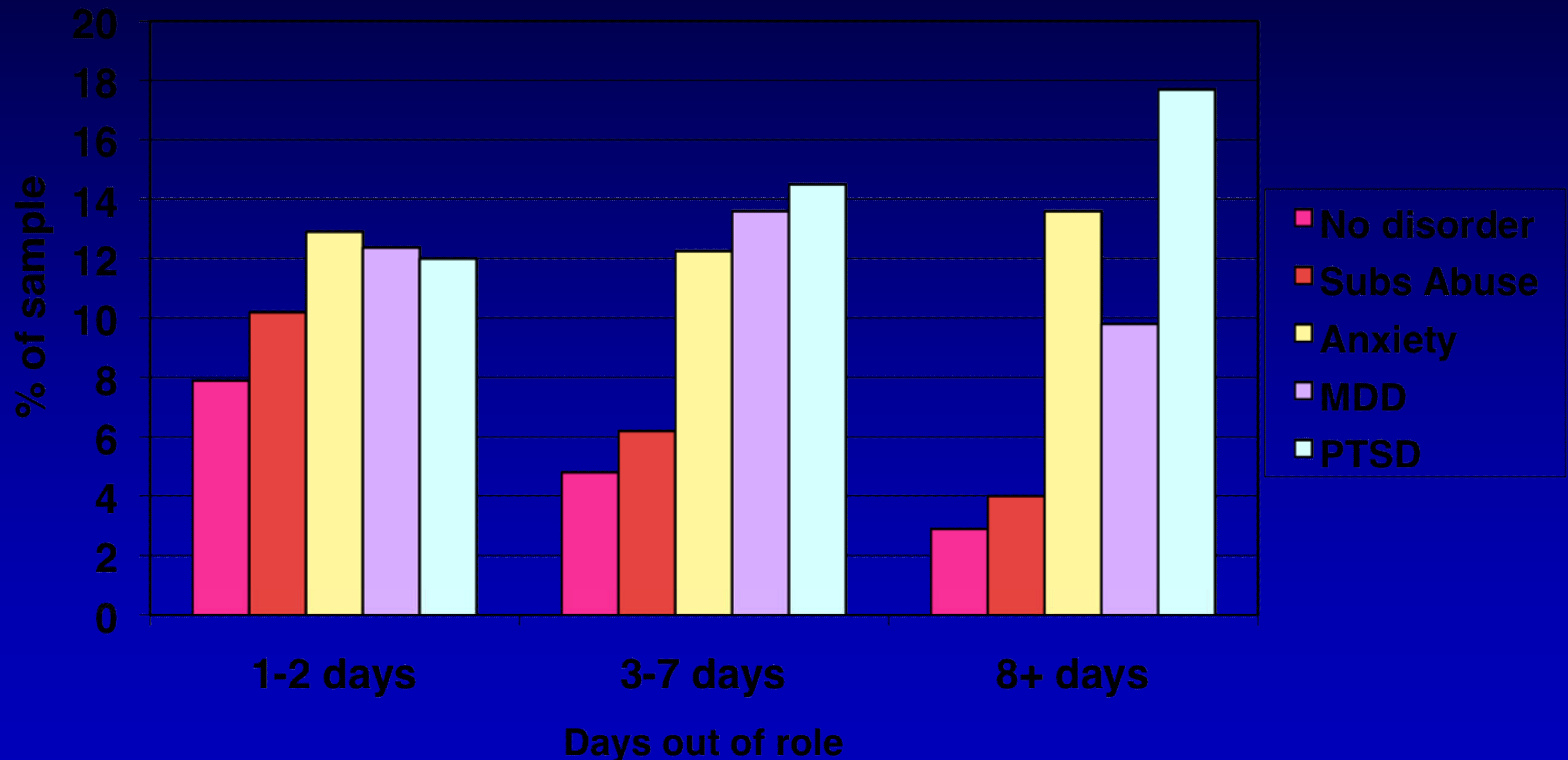
Burden of Disease Associated with PTSD

Partial days out of role by disorder



More of the PTSD group than expected had 8+ partial days out of role, $p < .0001$

Days out of role by disorder



More of the PTSD group than expected had 8+ days off, $p < .0001$

Burden of Disease in NCS

In terms of impact, prevalence and financial burden on society, major depression and PTSD head the list of mental disorders

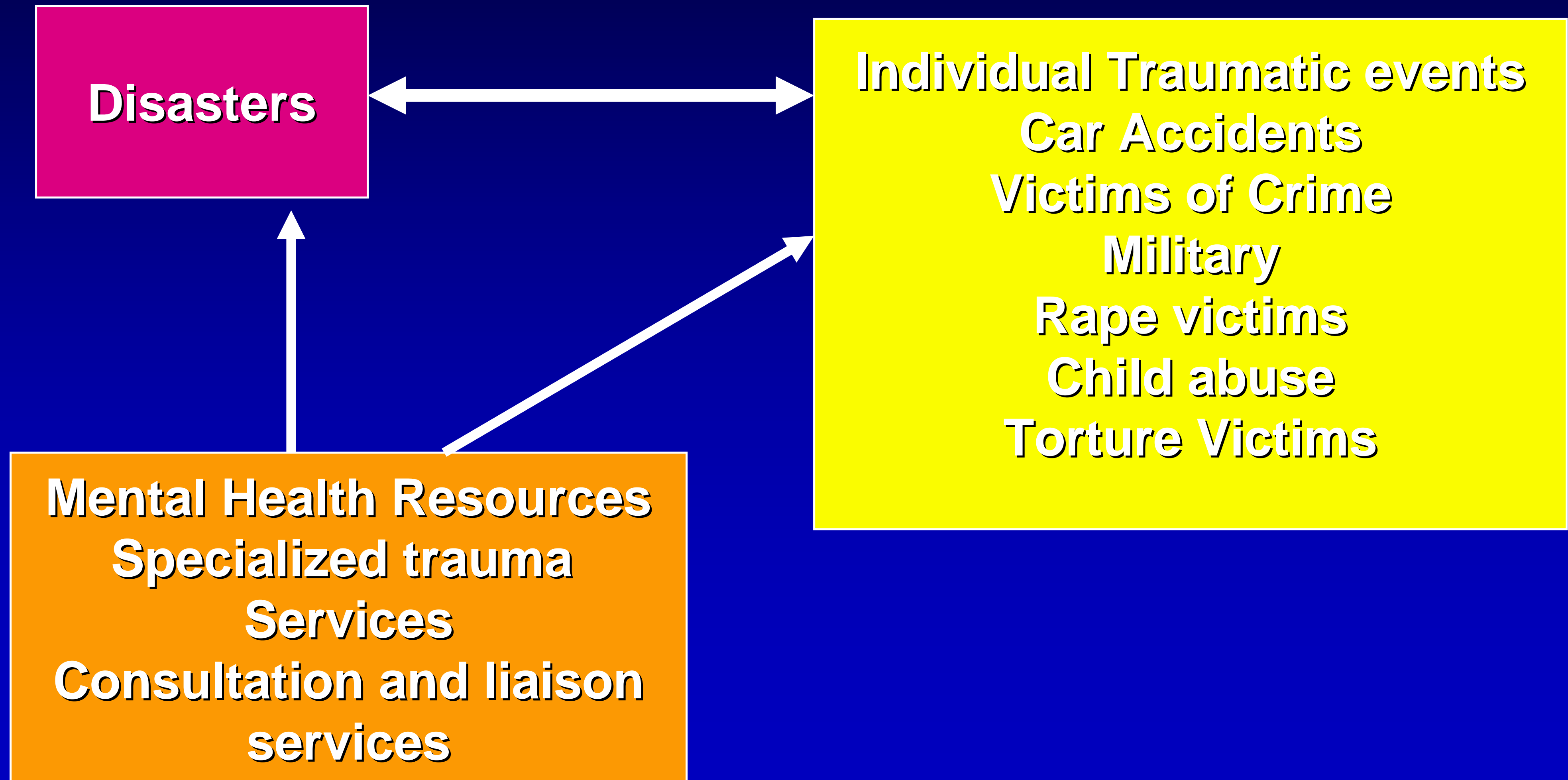
Kessler, 2000.

Evidence based treatment in a compensation setting: Management issues

Prof AC McFarlane

Head of the University of Adelaide Node, The Centre for Military and Veterans Health.

Trauma related services



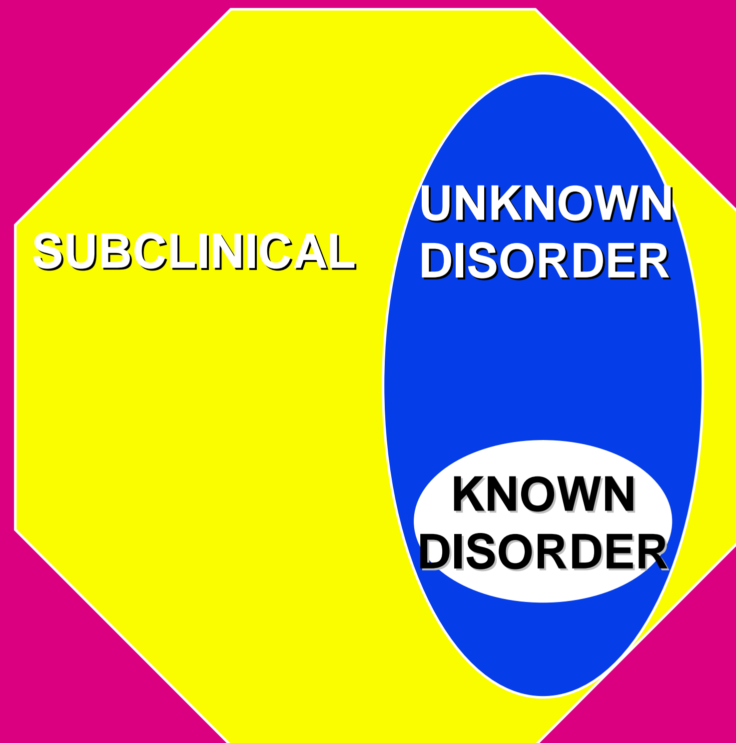
What does epidemiology teach us?

- Traumatic events are far more common than was anticipated
- There will be an interaction between workplace and personal traumatic events
- PTSD is not the only consequence MDD and alcohol abuse
- There is a long delay between exposure and individuals presenting for treatment
- Disorder is the exception not the rule
- Repeated and prolonged trauma exposure is a critical determinant of risk

Critical Incorrect Misconceptions

- People who are ill will present for treatment
- People who are ill will be obvious to their supervisors
- All people who are ill have little motivation to work
- Traumatic stress is a created epidemic

Identification of Morbidity



WORKFORCE POPULATION

Workplace Mental Health Care

- Screening, treatment and telephone follow up
- Significant improvement
- Improved productivity, less absences, less training costs
- Cost/benefit established
- Problem of acceptance and take up

- Barriers in Australia
  - No employer based health insurance
  - EAP- some not evidence based
  - Under diagnosis by GP's

Wang et al, JAMA, 2007

Challenge for Employers

- Document work place exposures
- Record the exposures of individual employees
- Have a risk management strategy
  - Psychological first aid - not debriefing
  - Screening
  - Anticipated delayed onset
  - Workplace stress as a proxy indicator

Advising the Organization

- Good quality advice with expertise in traumatic stress
- Policy and procedures
- Implementation strategy
- Occupational health service with training
- Line manager training
- Audit workers compensation claims
- Background industrial tensions

Delay between onset of disease and presentation for treatment

- Replication of the NCS
- 12 month prevalence
  - » 3.6% PTSD
  - » 6.7% MDD
- Mean delay in receiving treatment
  - » PTSD 12 years
  - » MDD 8 years

Impact of Delayed Identification

- Further exposure
- Progressive hardwiring of neurobiology
- Decreased efficacy of treatments
  - Evidence is not clearly established
- Further workplace stress as a manifestation and aggravating factor

Advising about a case

- Ascertain the nature of the duties
- What alternative duties are available?
- Speak to supervisor if possible
- Create realistic expectations
- Manage issues raised about the employee - performance issues may be an indication of symptoms

Advising the Worker

- Going off work is not necessarily the best strategy but protect from further exposure until treatment is successful
- Explain symptoms and identify environmental triggers
- Importance of early treatment
- Separate the industrial and compensation issues

Issues for Health Professional

- Remove from further possibility of trauma exposure if the worker remains at work
- Thorough history and diagnosis
- Need to provide evidence based treatment - NHMRC guidelines
- Ensure that full range of treatments have been covered
- Assess residual disability and risks of further exposure

Screening in High Risk Environment

- Optimal timing - 120 days
- Need for appropriate measures
  - » Not personality measures such as the MMPI used in selection
- Annual assessment
- Validation of cut offs against clinical interviews
- Follow up with clinical assessment
- Subclinical symptoms are an indicator of risk

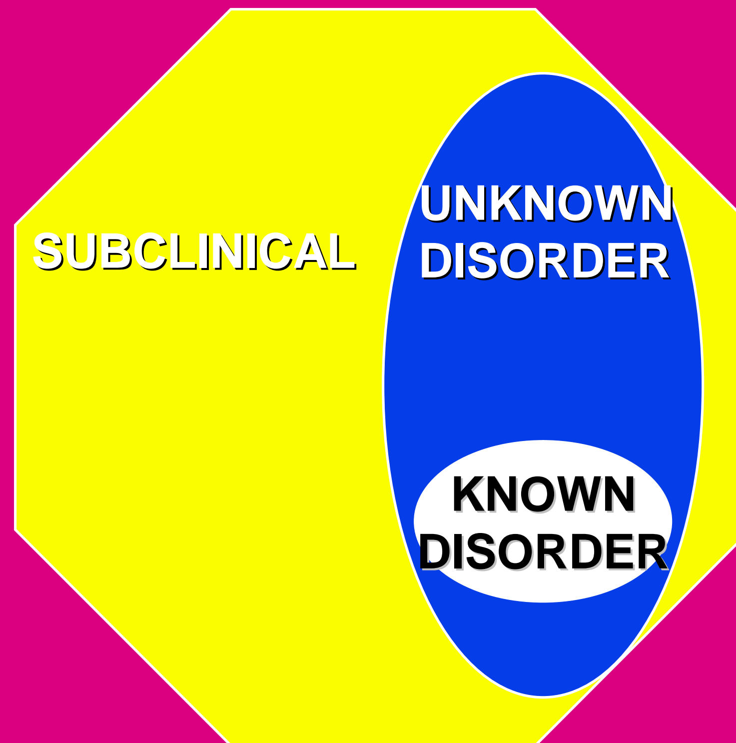
Measures

- Traumatic exposure
- PCL
- K 10
- Audit

Screening after London Bombings

- Problems of getting access to population
- Defined high risk groups
- 71% screened positive
- PTSD the predominant diagnosis
- Treatment given to 82 with large effect size
- More referrals from screening than GPs who had been contacted
    - Brewin et al, 2008 Journal fo Traumatic Stress, 21 3-8

Identification of Morbidity



TOTAL WORKFORCE

TREATMENT

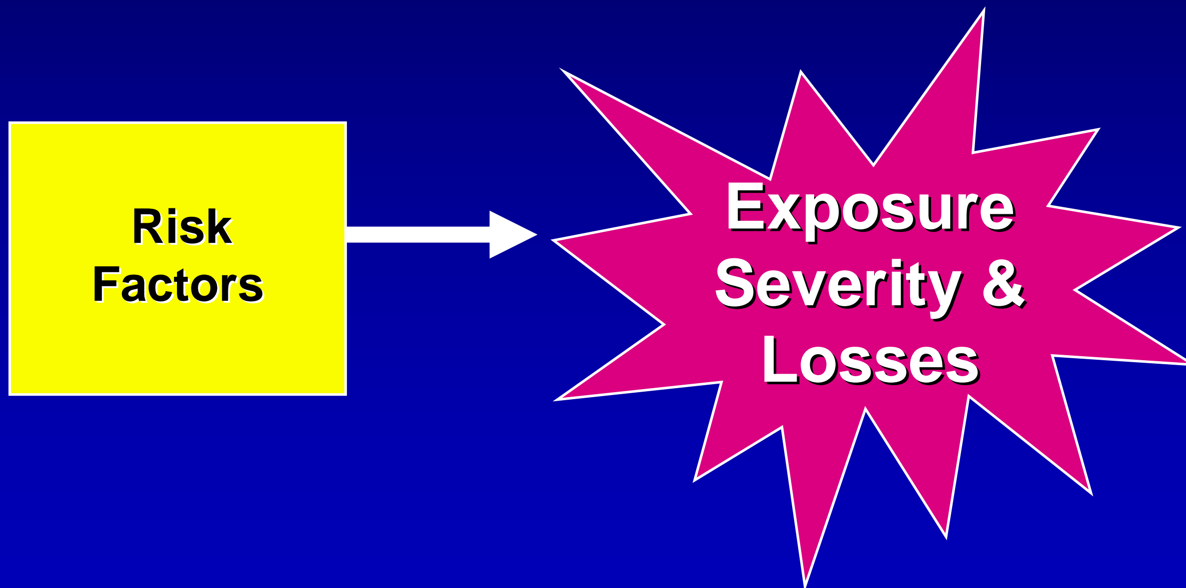
Public Health Perspective

- The possible interventions
  - Do not over-estimate value of prevention
- Planning and coordination
  - Part of general health policy
- The identification of those at risk
- Need a mental health literacy program

Modeling of Trauma Impact

Risk Factors

Modeling of Trauma Impact



Modeling of Trauma Impact

Treatment Issues

- Exposure treatment is more effective than supportive counselling
- The linking of the memory with the affect and creating a narrative is critical to treatment
- Implies that a specific treatment is required
- Medication assists psychotherapy

Therapy principles

- Identify content of flashbacks
- Focus exposure on these and on other moments of intense emotion (hotspots)
- Modulate arousal so that individual is fully aware and does not dissociate (graded exposure, 3rd person narratives, typing vs. writing)

Early Intervention in PTSD

- 97 individuals with PTSD in initial months after MVA
- 3 interventions, CBT, self help book and repeat assessment
- Outcome
  - » CBT 11% PTSD
  - » Booklet 61% PTSD
  - » Follow up 51% PTSD
    - » Ehlers et al, 2004

Breuer and Freud: Psychical mechanism of hysterical phenomena (1893)

"...each individual hysterical symptom immediately and permanently disappeared when we had succeeded in bringing clearly to light the memory of the event by which it was provoked and in arousing its accompanying affect, and when the patient had described that event in the greatest possible detail and had put the affect into words." (p 57)

Possible Improvements

- At the point of registration of a traumatic injury, a psychological screen should be administered
- Greater effort at maintaining in the workplace following traumatic events
- Referral to high quality multidisciplinary health service
- Matching activity to disability

Occupational Health Service Management responsibilities

- Advise about monitoring trauma exposure
- Assist identifying individuals at risk
- Advise about rotation in high risk groups
- Train supervisors
- Healthy life style and resilience programs
- Maintain relevant organisational knowledge base
- Monitor injury and sick leave patterns

Prof AC McFarlane

Centre of Military and Veterans Health
The University of Adelaide
122 Frome Street
Adelaide
South Australia
Australia 5000
Telephone 61 88303 5200
Fax 61 88303 5368
Email alexander.mcfarlane@adelaide.edu.au