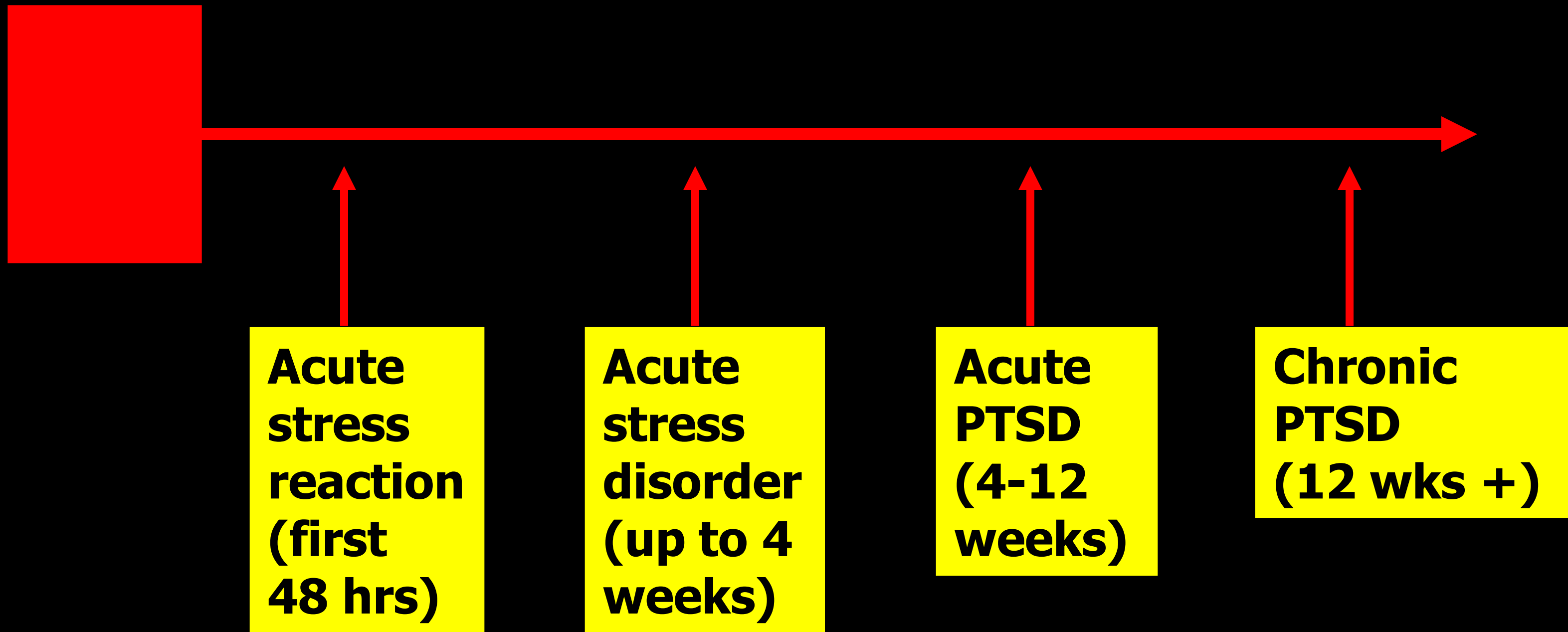
Psychological treatment of Post-traumatic Reactions

Alastair Hull

Treatment for Post-traumatic reactions

- is a staged approach

Time Course of Reactions



Acute Stress Disorder

- Amazingly no good studies
- Ideal opportunity for major trial
- Is ASD just acute PTSD?

Early Intervention

- Psychological debriefing
- CISD

- Characterised by very early intervention "across the board" for "all or most exposed" before the development of a disorder
- Cochrane review

Early Intervention

Why might an intervention designed to do good, instead do harm?

- Re-exposure to trauma
- Disrupts natural coping style
- Disrupts avoidance
- Sensitizes people to expect symptoms
- Suggest that normal reactions are disorders

Immediate management of PTSD

- **Psychological first aid**
  - Giving information and social support as soon as possible
- Avoid brief single session debriefing
- Watchful waiting if symptoms are moderate – assess whether natural recovery occurs, review at one month
- Screen at risk groups
  - Following disaster
  - Refugees and asylum seekers

Treatment aims to...

- "normalise" reactions
- enable catharsis
- inspire hope, restore sense of safety &/or trust
- "educate"
- treat core symptoms and comorbidity
- limit "kindling" of symptoms

A legion of psychological therapies...

- psychoanalysis (and its derivatives)
- abreaction
- hypnotherapy
- group variants
- family/marital therapy
- action-focused therapy
- art therapy
- psychodrama
- marathon therapy

A legion of psychological therapies (ii)

- thought- field therapy
- "rewind" therapy
- in-patient eclectic programmes
- Imaginal exposure
- In vivo exposure
- cognitive restructuring
- Eye Movement Desentization and Reprocessing (EMDR)

Metaanalysis of all treatments

Van Etten & Taylor (1998)

- psychological > medication > control
- few RCTs for PTSD
- most effective : behaviour therapy & EMDR
- combination treatments ?

Psychological Treatments for PTSD

APA Task Force on Promotion and Dissemination of Psychological Procedures

- **"no gold standard treatments" for PTSD**

(Chambless et al., 1996)

APA Task Force on Promotion and Dissemination of Psychological Procedures

Proven Efficacy

- Imaginal Exposure

Probably Efficacious

- Cognitive restructuring
- EMDR

(Chambless et al., 2000)

Psychological treatment- current guidelines

Key points

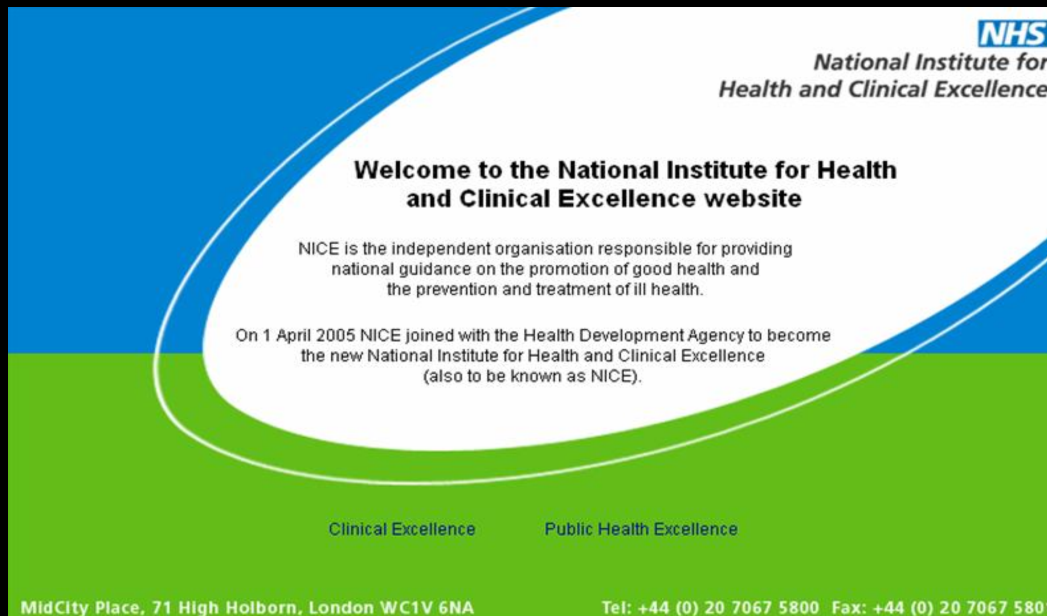
- PTSD symptoms can be very resistant to therapy
- **Exposure** is key ingredient of successful psychological therapy
- **Trauma focused-CBT** and **EMDR** are the most effective

ISTSS, APA & NICE guidelines, & consensus statement

Post-traumatic Stress Disorder (PTSD)

The management of PTSD in adults and children in primary and secondary care

Clinical Guideline
Published: March 2005



www.nice.org.uk

Where is the guideline available?

- Quick reference guide: summary of recommendations for health professionals:
  - **www.nice.org.uk/cg026quickrefguide**
- NICE guideline
  - **www.nice.org.uk/cg026niceguideline**
- Full guideline: all of the evidence and rationale behind the recommendations:
  - **www.rcpsych.ac.uk/publications**
- Information for the public: plain English version for sufferers, carers and the public
  - **www.nice.org.uk/cg026publicinfoenglish**

Treatment is difficult because of…

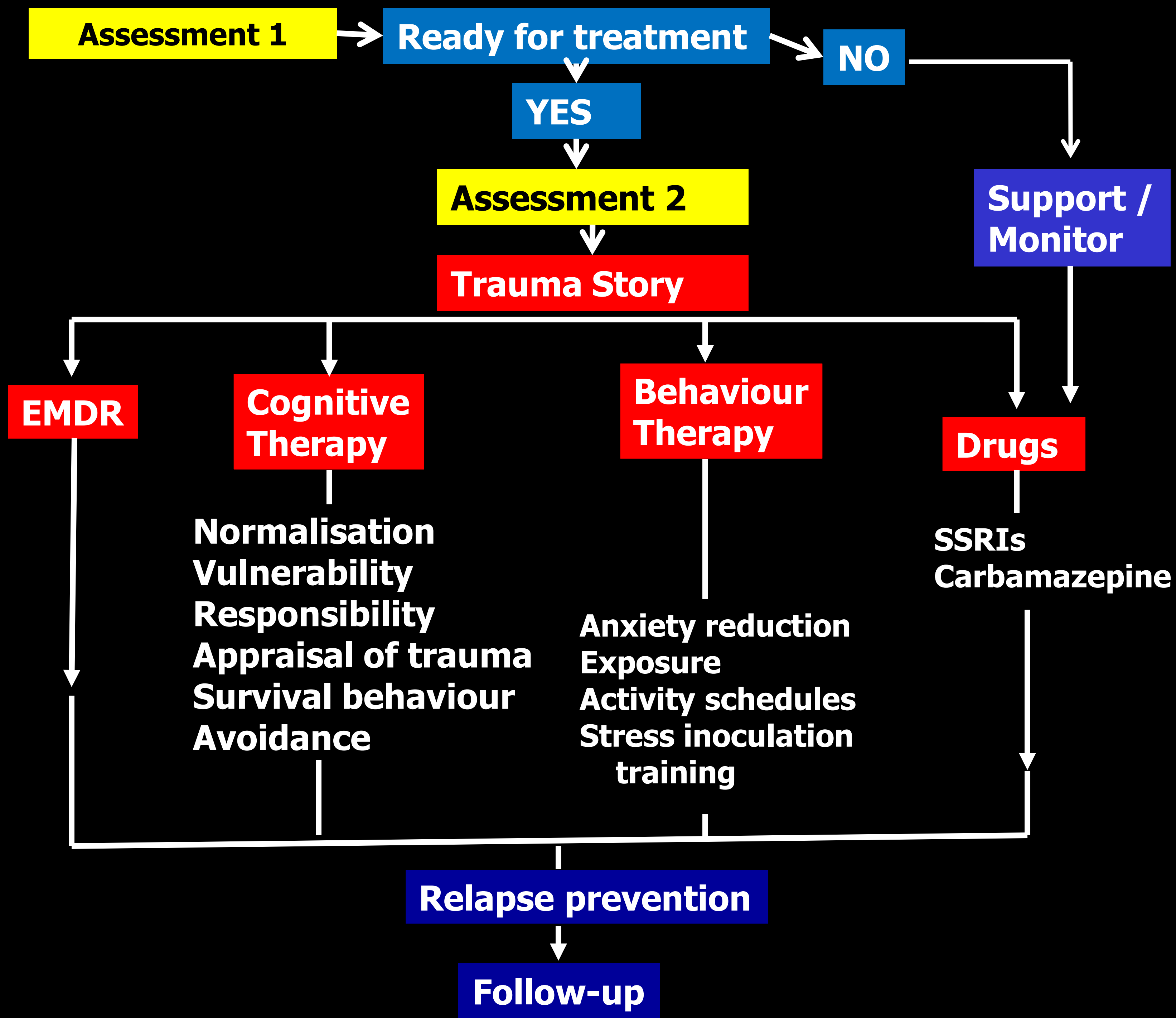
- unrealistic expectations
- delayed treatment
- poor compliance or premature discontinuation of Rx
- co-morbidity
- "re-traumatisation"
- denial and "stiff upper lip"
- unworthy of help due to guilt
- loss of trust in authority figures or members of opposite sex
- prolonged legal and compensation procedures
- credibility of treatment

"….. he should see whether or not it was possible to make them [traumatic memories] tolerable, if not even pleasant companions, instead of evil influences which forced themselves upon his mind."

(Rivers, 1918)

Stages of Treatment

1. engagement
2. normalisation/crisis stabilisation (if necessary)
3. strategies to manage symptoms
4. trauma-focused CBT, including,
5. cognitive restructuring
6. ongoing support


Assessment 1
Ready for treatment
NO
YES
Assessment 2
Support / Monitor
Trauma Story
EMDR
Cognitive Therapy
Behaviour Therapy
Drugs
Normalisation
Vulnerability
Responsibility
Appraisal of trauma
Survival behaviour
Avoidance
SSRIs
Carbamazepine
Anxiety reduction
Exposure
Activity schedules
Stress inoculation training
Relapse prevention
Follow-up

NCCMH guidelines for Psychological treatment

Key points

- Trauma-focused treatments either **CBT** or **EMDR** should be offered
- Offer **regardless of time lapse** since TE
- Rx should be **long enough**, **regular**, with **same therapist**
- **Extend** beyond 12 sessions if complex
- **If necessary**, establish a therapeutic relationship before trauma material is directly addressed
- Non-trauma focused interventions should not routinely be offered
- **Augmentation with medication** if failure to respond to above

National Collaborating Centre for Mental Health, 2005

CBT for PTSD: an overview

Treatment programmes vary

- prolonged exposure (PE) alone
  - includes both *in vivo* exposure and imaginal exposure
    - *in vivo* exposure (exposure in reality to feared situations)
    - imaginal exposure (repeated reliving of the trauma)
- PE plus cognitive restructuring
- PE plus Stress Inoculation training (SIT)
- EMDR can be used as substitute for imaginal exposure

CBT for PTSD: an overview (ii)

How to choose?

- prolonged exposure (PE) alone
  - more is not necessarily better
  - research shows these 2 exposure approaches are very effective

CBT for PTSD: an overview (iii)

How to choose?

- prolonged exposure (PE) alone
  - more is not necessarily better
  - research shows these 2 exposure approaches are very effective
- PE plus cognitive restructuring
  - ➢ very effective for patients whose major problems lie in their dysfunctional thoughts, producing guilt and shame
  - ➢ and, in those with comorbid anxiety disorders

CBT for PTSD: an overview (iv)

How to choose?

- prolonged exposure (PE) alone
  - more is not necessarily better
  - research shows these 2 exposure approaches are very effective
- PE plus cognitive restructuring
- PE plus Stress Inoculation Training (SIT)
  - ➢ in those with extreme continuous tension- often reluctant to engage in exposure until arousal levels are decreased
  - ➢ Efficacy of components of SIT not established but in combination with cognitive restructuring is effective

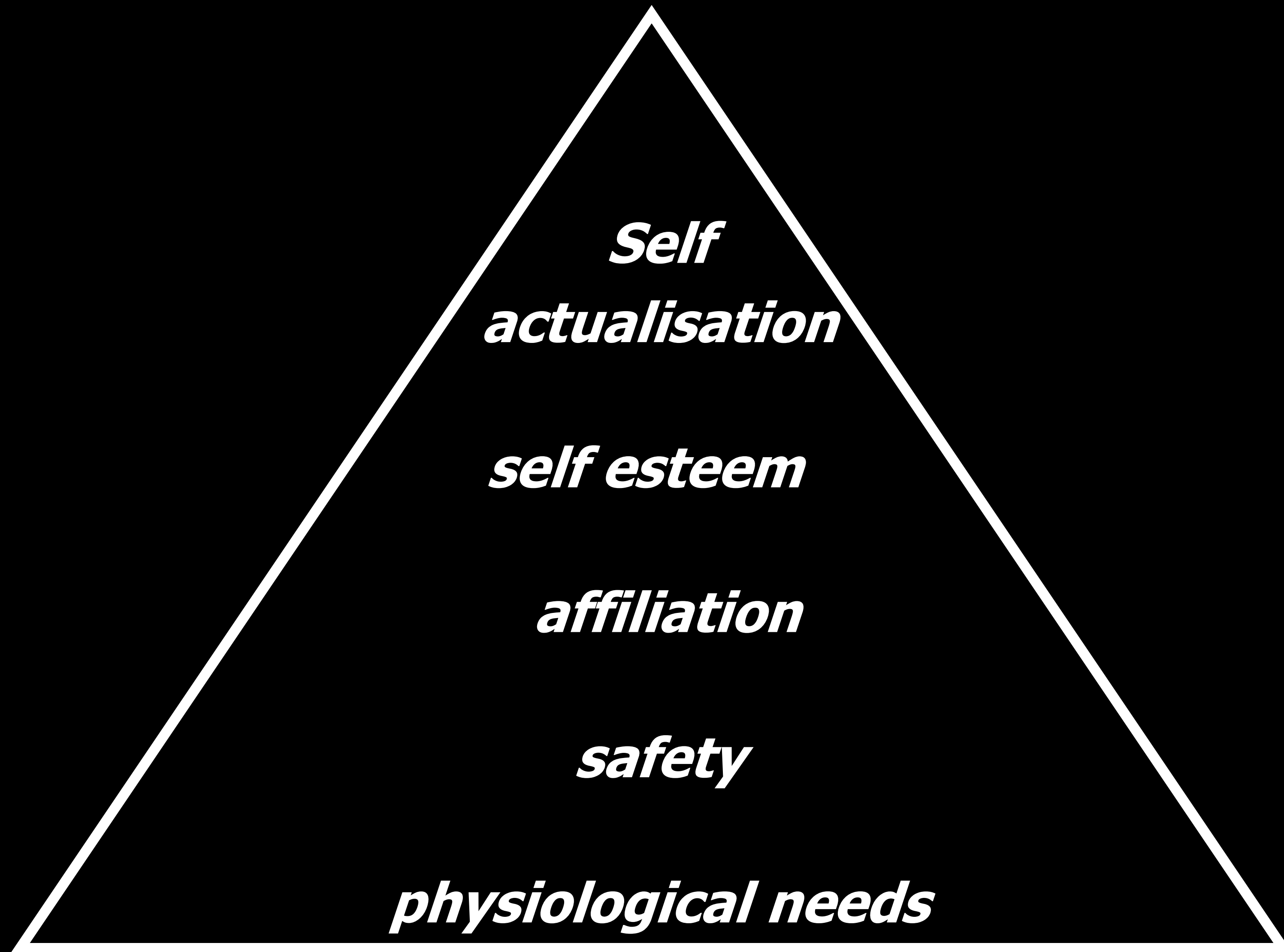
Specific considerations in applying CBT for PTSD

- **reluctance to attend sessions that focus on confrontation with the Traumatic event**
  - allow more cancellations and appt changes than usual, call clients who don't attend
- **after some traumatic events fears are rooted in reality**
  - assess prior to *in vivo* hierarchy
  - think in terms of "an acceptable level of risk"
- **N.B., the traumatic event actually occurred**
  - so can be difficult to use cognitive techniques to change patient's perception

Overview of CBT programme

- assessment
- stabilisation and balance
- psychoeducation
- managing symptoms, e.g., thought stopping
- rationale for IE, *in vivo* exposure, cognitive restructuring
- handout on post-traumatic reactions
- breathing retraining, relaxation
- construct and carry out *in vivo* hierarchy
- conduct IE
- conduct cognitive restructuring

Stabilisation and balance



Maslow's Hierarchy of Needs (1970)

Pragmatic

- Physical safety
- Emotional safety
  - Professional or social support
- Problem solving
- Educate partner or family
- Healthy pleasures- modest goals
  - Daily routine, spending time with other people not talking about trauma, structuring day.
  - N.B., many are depressed

Pragmatic……….(ii)

- compensation proceedings
- occupational health

TLC…. of self

- Exercise
  - Don’t advise until assessed whether hyperventilate and if they do, commence breathing training
- Sleep hygiene
  - Be aware the bedroom may be a potential trigger
- Nutrition

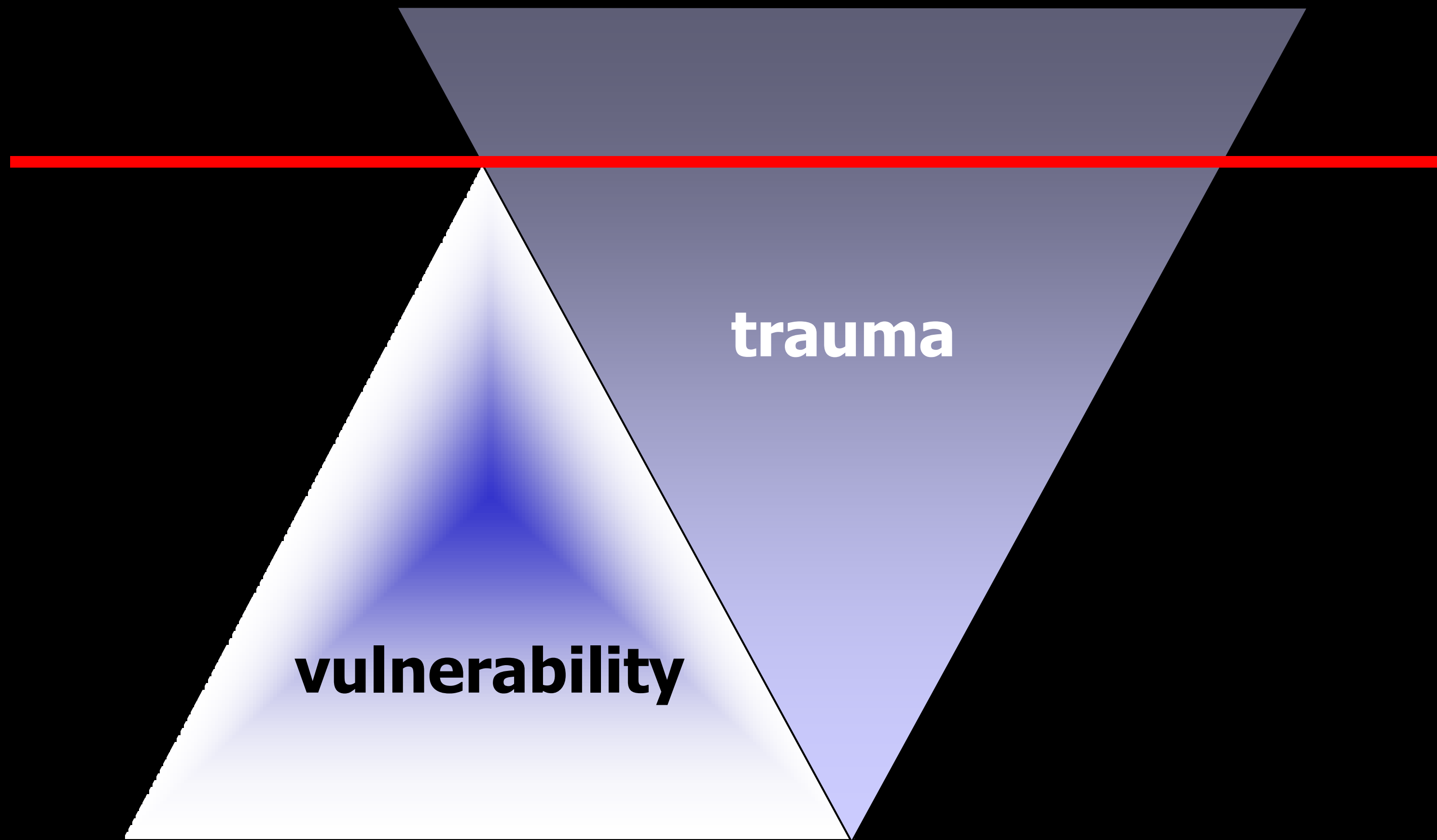
Psychoeducation

Psychoeducation

- appropriate accurate information
  - ➢ police, A&E, paramedics, eye witness(es)
  - ➢ Media reports, FAI, occasionally video footage (CCTV)
  - ➢ N.B., can lead to incorporation in memory
    - ➢ Warn of potential medicolegal implications
    - ➢ Crown Office guidance
    - ➢ Check for gaps in sequential memory first
    - ➢ May be gaps in memory or gaps in understanding
    - ➢ LoC does not preclude PTSD
- healing metaphor
- range of responses to threat

Psychoeducation

- appropriate accurate information
- healing metaphor
- range of responses
- reason for response.... *"why me?"*

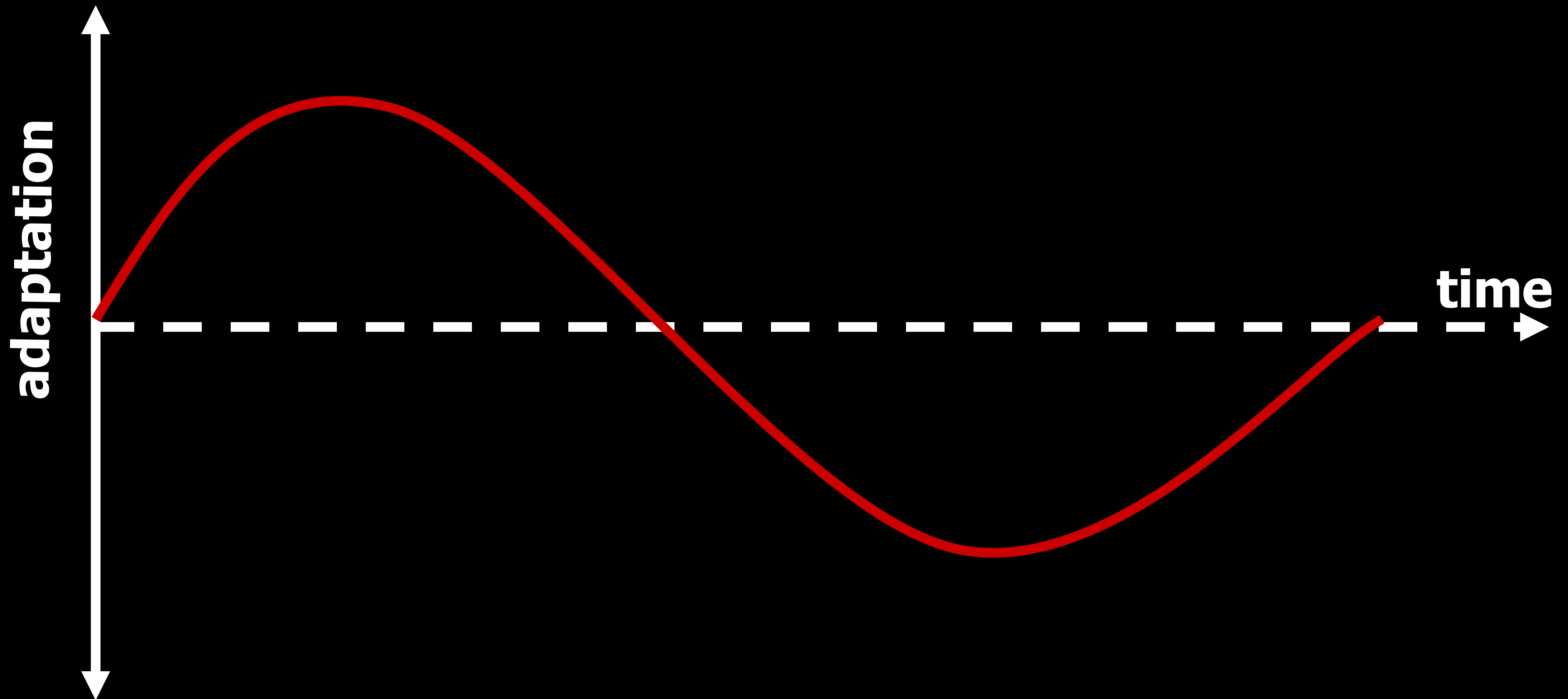


Edna Foa, 1994

Psychoeducation

- appropriate accurate information
- healing metaphor
- range of responses
- reason for response
- phases of response

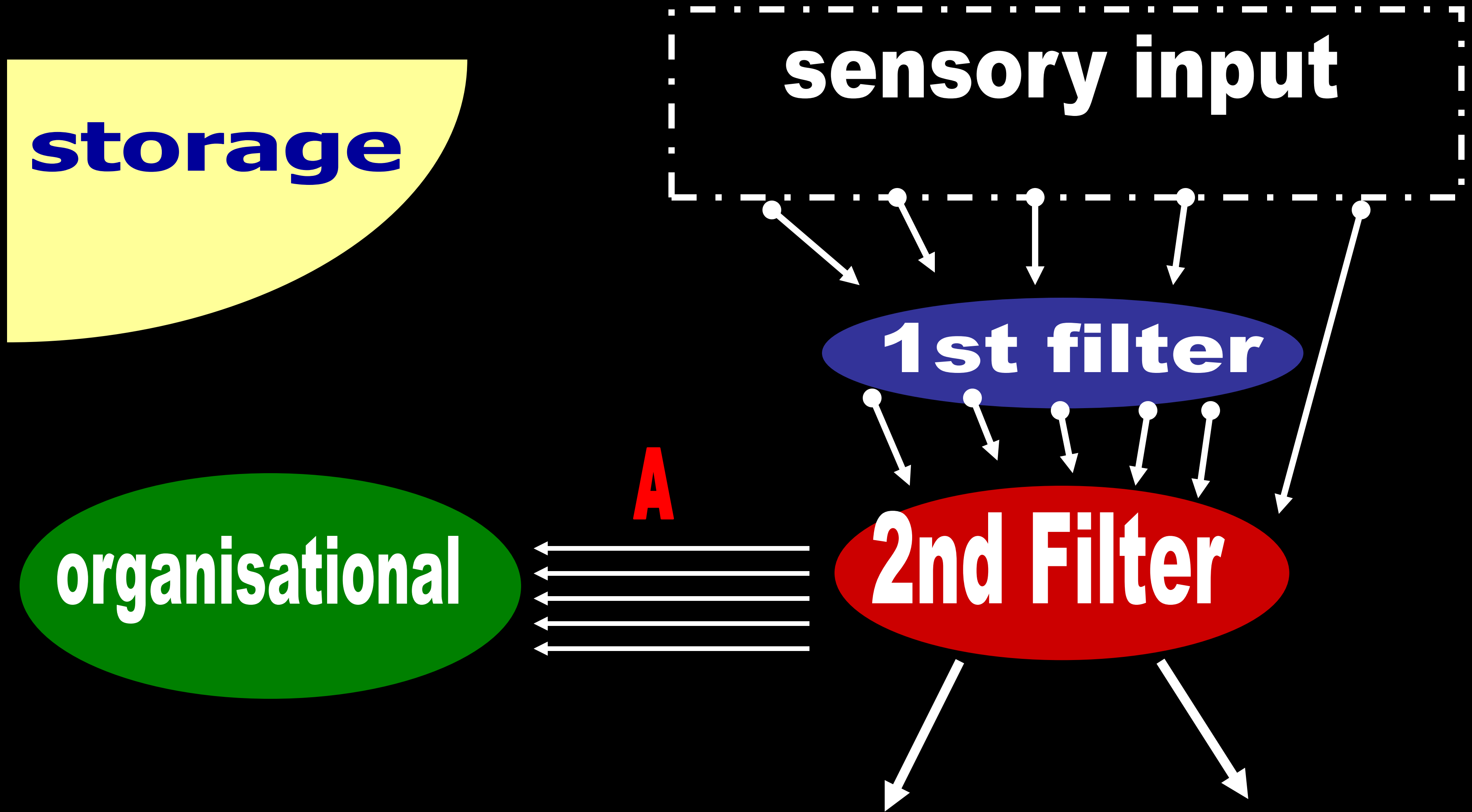
Adaptation after traumatic events



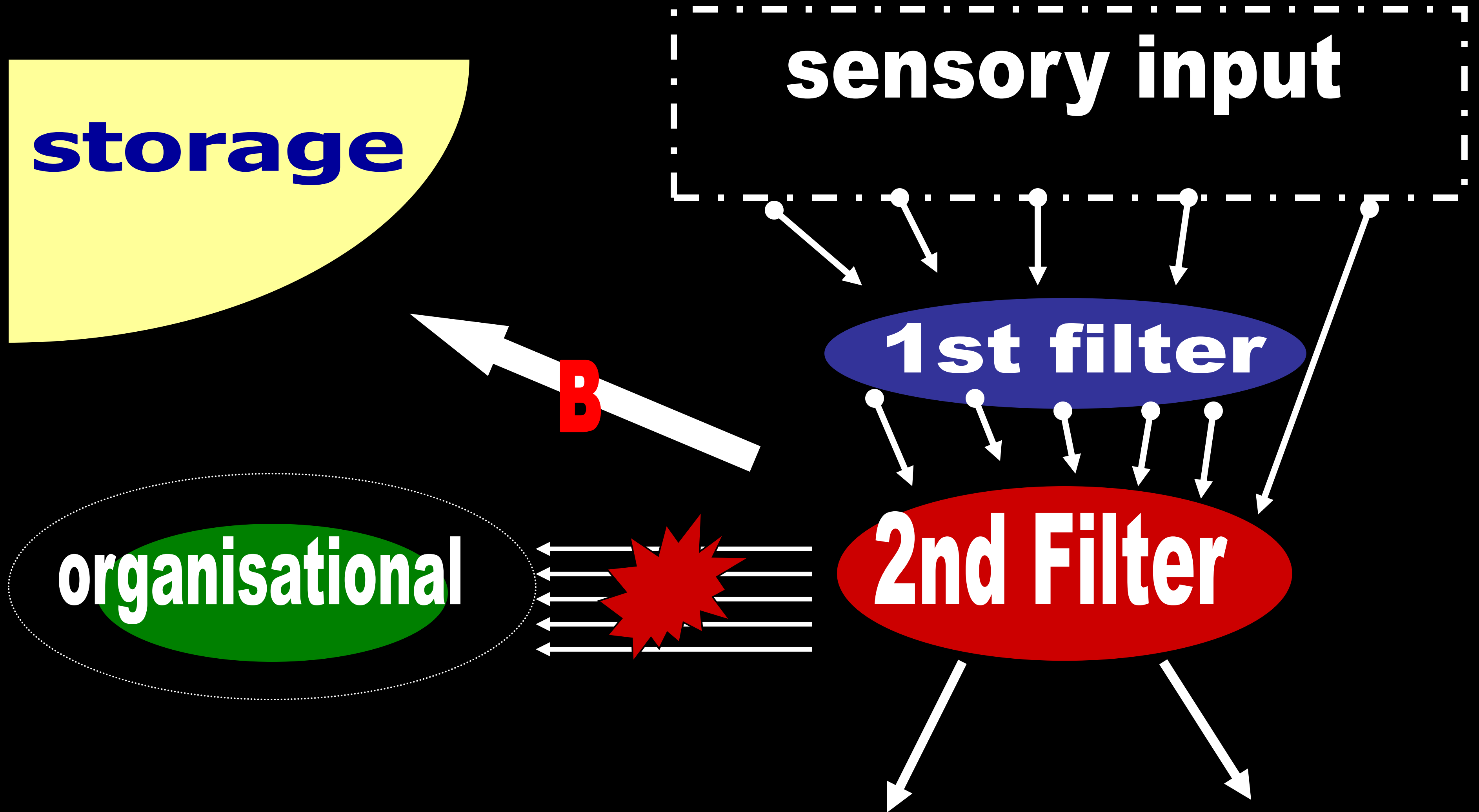
Psychoeducation

- appropriate accurate information
  - police, A&E, paramedics, eye witness(es)
- healing metaphor
- range of responses
- reason for response
- phases of response
- memory
  - “feels like yesterday”

Limbic system



Limbic system



"it feels like yesterday"

- Broca's area decreased rCBF
- predominance of emotional areas of brain over higher cortical areas
- fragmented memories
- emotional memory on RHS brain
- dissociation

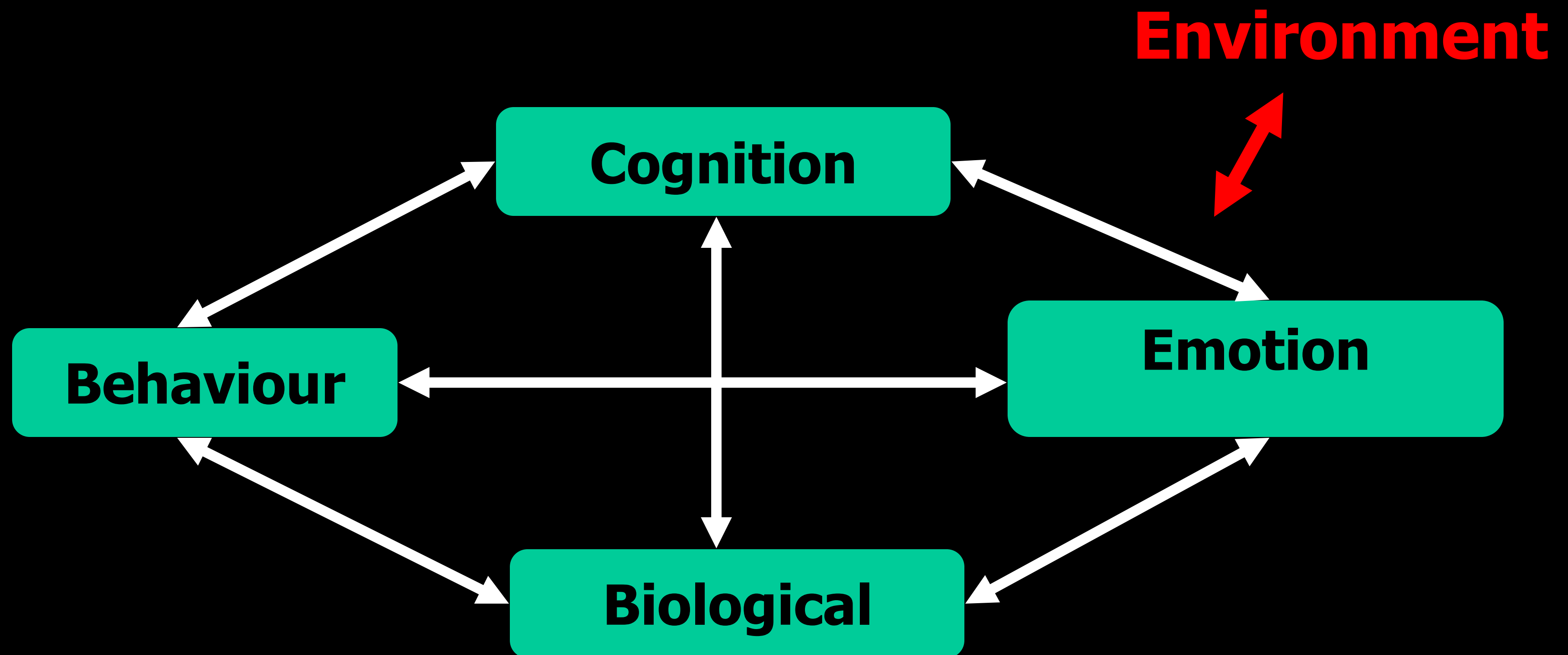
Psychoeducation

- appropriate accurate information
  - police, A&E, paramedics, eye witness(es)
- healing metaphor
- range of responses
- reason for response
- phases of response
- memory
  - “feels like yesterday”
  - “filing cabinet” metaphor
  - “curtained room” metaphor

Psychoeducation

- appropriate accurate information
- healing metaphor
- range of responses
- reason for response
- phases of response
- memory
  - "feels like yesterday"
  - "filing cabinet" metaphor
  - "curtained room" metaphor
- core symptoms
  - Claudia Herbert's book
- educate partner and/or family

Model of emotional disorders



Padesky & Greenberger, 1996

Managing symptoms

Relaxation

For example.,

- PMR
  - N.B., physical injuries
- imagery
  - trauma survivors often become very good at imagery

Relaxation

Limitations

- can provoke relaxation-induced anxiety in some clients
- less effective than other therapies
- adjunct rather than central therapy

PMR for trauma survivors

- tensing in PMR might trigger anxiety in some people
  - Use calming self-statements
  - "I am safe now; tension is just a reminder of an old memory"
- keep eyes open as you practice
- start with briefer periods of practice
- keep a record of relaxation
  - Progress can be very motivating

Visualisation

- Mindfulness techniques
- Light stream technique…

Managing Intrusive Thoughts

- Cannot avoid thinking about TE completely
- Thinking about it at times is important
- **Prescribe 30mins per day** if too many intrusive thoughts
- Strategies are required to limit them at other times to limit interference with other activities
- **Distraction techniques/activities**
  - Absorbing activity, especially if physical and mental aspect (e.g., juggling)
  - Mental distraction techniques useful as can use without others noticing

Managing Intrusive Thoughts

Strategies

- focus on small area and describe in detail
- focus on surroundings with all senses
  - describe in detail everything can see, hear, smell, touch, taste
  - this keeps in touch with "here and now" reality
  - mental exercises such as serial 7s, animal A-Z
  - describe happy memory in detail to self
  - describe a safe place (relaxed and happy)
- Thought stopping
  - especially for constant thoughts or ruminations

Managing Intrusive Thoughts

Thought stopping

- Especially for constant thoughts or ruminations
- **Elastic band & stop**
  - Gradually say it quieter and quieter
  - After 10-15 times just saying it to self
  - Snap band each time
- **Non-dominant hand writing**

Memory work

Cognitive Processing- very briefly

- developed by **Resick & Schnicke** (1992, 1993)
- incorporates elements of CT and Ex.
- CT challenging problematic cognitions such as self-blame and undoing of the TE
- Ex writing a detailed account of the TE and reading it to the therapist and at home. Used to provoke affect and identify "stuck points" for CT

Cognitive restructuring

- very briefly

Cognitive Restructuring

Key features are

- a focus on the meaning of trauma to the patient
- a systematic attempt to modify patients' false assumptions
- an attempt to help the patients to achieve a realistic view of themselves, their environment and their future
- patients are encouraged to keep diaries or records to carry out assignments

Cognitive Therapy

Limitations

- may require to be used in combination with Exposure

N.B.,

- Whilst not empirically validated the impression is that CR appears to occur parallel to or after successful Exposure- the relationship is a complex one.

Common dysfunctional beliefs & associated negative thoughts in PTSD

Pre-trauma beliefs about the safety of the world

PTSD is likely to occur if:

- **pre-trauma** the person viewed the **world as a dangerous** place and the TE validates this

Common dysfunctional beliefs & associated negative thoughts in PTSD

Pre-trauma beliefs about the safety of the world

PTSD is likely to occur if:

- **pre-trauma** the person viewed the **world as a dangerous** place and the TE validates this
- **pre-trauma** view that the **world was safe** and the TE shatters this belief
  - in both instances the person overgeneralises to being in constant danger and there is no safe place in the world
  - results in extreme fear, avoidance and chronic hyperarousal
  - specific beliefs reflect the general belief so that:
    - *"all men are potential rapists",*
    - *"the streets are unsafe",*
    - *"cars are death-traps"* or
    - *"sleeping in the dark is dangerous"*

Cognitive restructuring: aims and methods

- correct mistaken beliefs such as
  - "the world in entirely dangerous" or "I am totally incompetent"
- Goal is to reduce anxiety or emotional distress by teaching clients to identify, evaluate and modify negative thoughts and dysfunctional beliefs
- teaches the patient to develop more realistic beliefs about ability to cope and the safety of the world
- Work together with negative thoughts and beliefs treated as hypotheses
- Collect evidence to determine whether the patient's conclusions are accurate and useful

Exposure

Various terms for exposure to anxiety-provoking stimuli without relaxation....

- prolonged exposure
- Imaginal exposure
- *in vivo* exposure
- flooding
- EMDR
- Virtual reality

Prolonged Exposure

- proven efficacy across a range of trauma
- includes **imaginal exposure** and ***in vivo* exposure**
- involves development of **anxiety hierarchy**

- **continued exposure** (in controlled fashion) to frightening stimulus
- leads to decreased anxiety (**habituation**)
- and then **decrease in avoidance behaviour**

Exposure

Evidence strongly supports use of combined in vivo and imaginal exposure

- Not widely used by clinicians
- Becker *et al* (2004) found 80% of psychologists did not use IE in Rx of PTSD
- <20% of Behaviour therapists reported using it most of the time
- 1/3 BTs stated did not use it at all
- **"most striking discrepancy between recommended practice** [imaginal exposure] **and actual practice"** Rosen (2004)

Exposure

Evidence strongly supports use of combined in vivo and imaginal exposure

Why not used more?

Apprehensions of clinicians

- ability to conduct effectively
- ability to appropriately manage any problematic reactions
- Therapist avoidance rather than habituation?

Exposure

Limitations

- realities of life e.g., rural life
- reluctance of some survivors to confront reminders and tolerate high anxiety
- may not be effective if guilt, shame or anger is the primary emotion
- care must be taken not to "*re-traumatise*" the patient

in vivo exposure

briefly

in vivo exposure

- approach/ procedure is largely consistent across disorders
- if use it for agoraphobic avoidance should have little trouble translating the technique to PTSD

Overview of *in vivo* exposure

1. present the **rationale**
2. introduce **SUDs**
3. **construct a hierarchy** of avoided situations, people and places using SUDs.
4. develop **homework assignment** based on this hierarchy
5. instruct patient in *in vivo* exposure.......

Overview of *in vivo* exposure

6. instruct patient in *in vivo* exposure
   - Remind that not every situation needs to be included
   - the list is representative to teach idea behind *in vivo* exposure
   - however, make sure that items with SUDs of 50, 60, 70, 80, 90 & 100 (or thereabouts)
     - these are the major foci of treatment

in vivo exposure instruction

- patient begins with situation that evokes moderate anxiety levels (SUDs = 50)
- patient puts him/herself into anxiety provoking (but realistically safe) situation
- patient records time and initial SUDs rating
- patient must **remain in situation for 30-45 mins**
  - Emphasise the importance of **remaining in the situation** until anxiety/SUDs decreases by at least 50%
  - Do not want them to leave the situation and feel relief but to habituate to the situation
- Patient records endpoint SUDs rating

in vivo exposure instruction

- The intention is that the **client is exposed to intermediate levels of "fear"**
  - Not too great to prevent processing
  - Not too slight that they are not engaging
- If use relaxation techniques during *in vivo* exposure use only to keep "fearfulness" at intermediate level.

imaginal exposure

Evidence base for Exposure

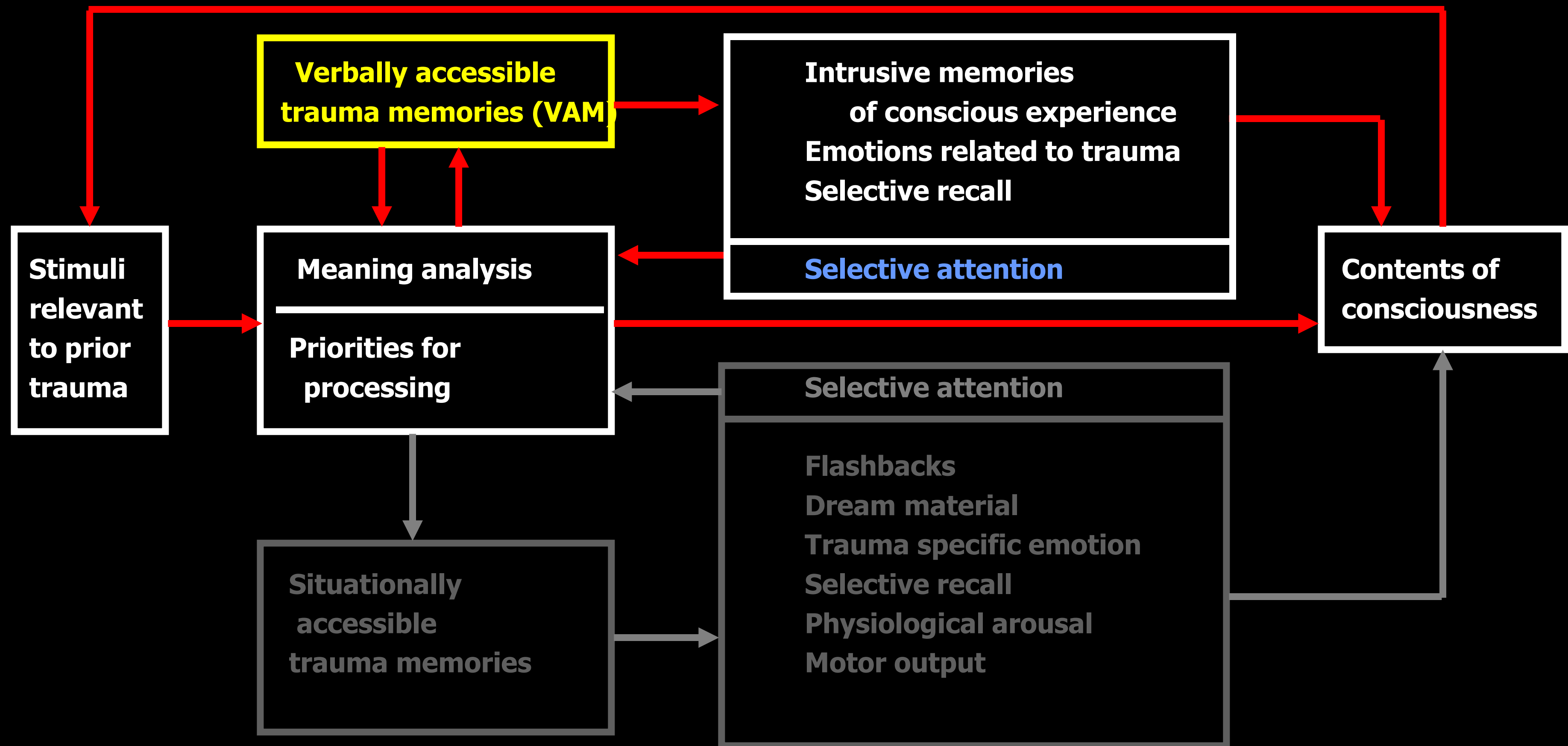
N.B., most research evidence supporting exposure in PTSD employs combination of IE and *in vivo* exposure

- No other treatment has such strong support
- **Systematic reviews**
  - (Foa et al, 2000; Keane, 1998, Sherman, 1998, van Etten & Taylor, 1998)
- **Research groups in**
  - America (Foa et al, 1991; 1999; Resick et al, 2002)
  - UK (Marks et al, 1998; Tarrier et al, 1999)
  - Australia (Bryant et al, 2003)
- **Research on IE alone**
  - (Cloitre et al, 2002; Tarrier et al, 1999; Bryant et al, 2003)

Rationale for Imaginal Exposure

- Involves the patient being asked to **recount the TE in detail**
- To maximise efficacy of **IE**
  - need to maximise **stimulus cues** (e.g., sights, sound, smells)
  - and **response cues** (e.g., cognitions, affect, somatic sensations)

Dual Representation Theory of Trauma Memory



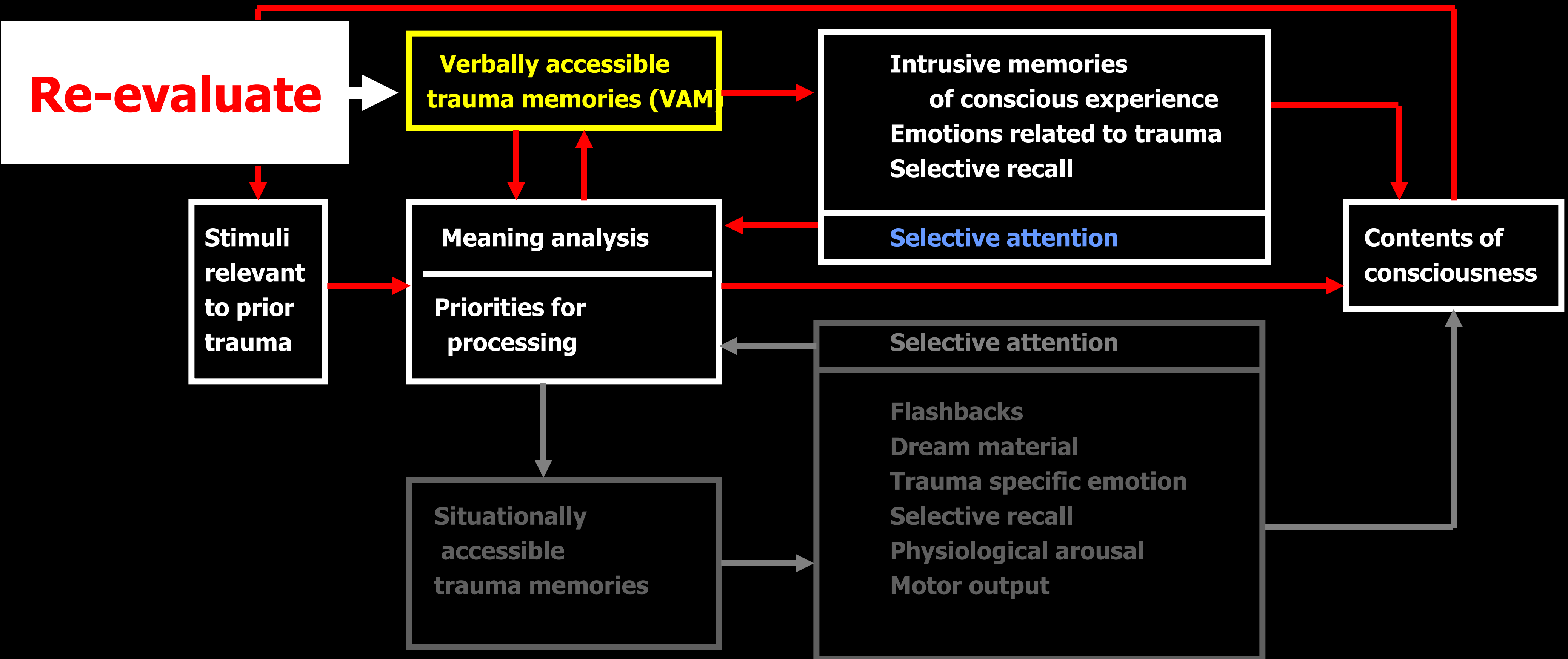
Brewin, Dalgleish & Joseph, 1996

Rationale for Imaginal Exposure

Based on principles of

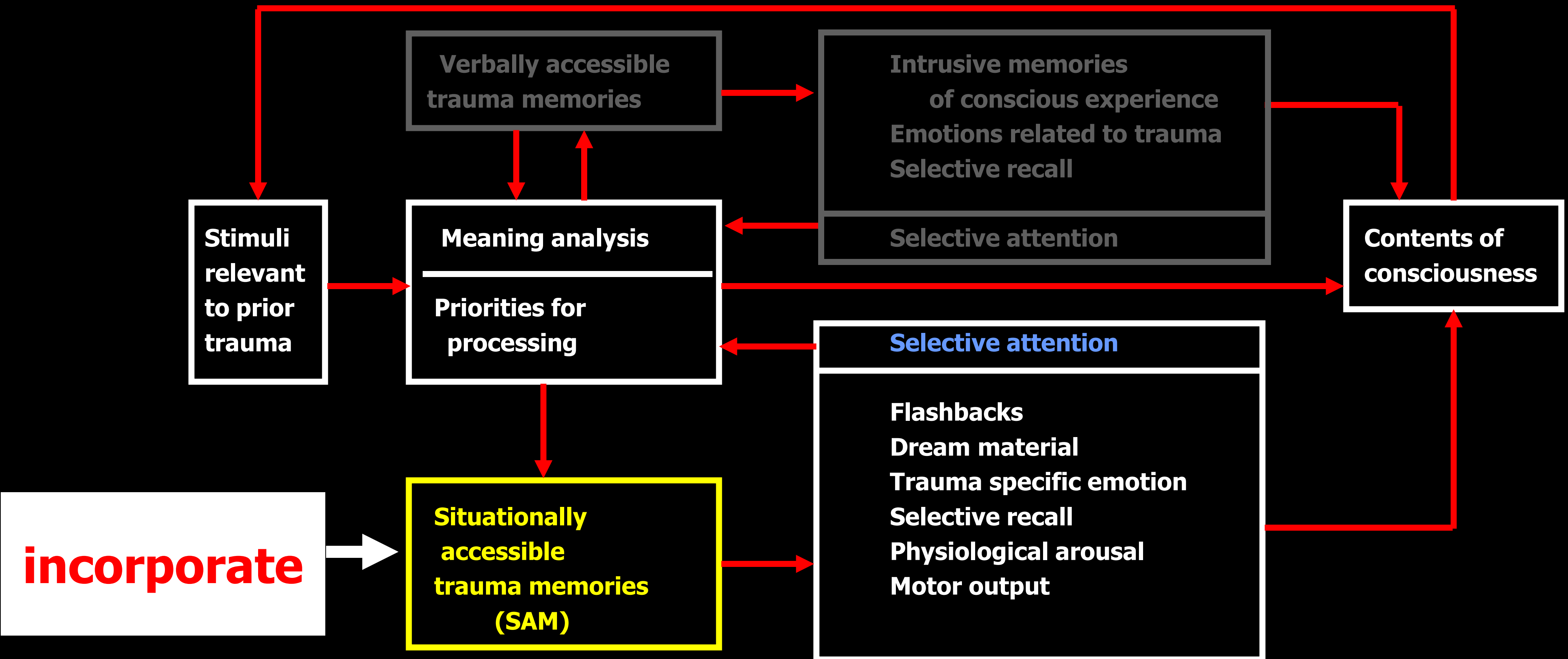
- **information processing**
  - traumatic memory network is activated through exposure
  - It is modified by re-evaluating old information (VAM)
  - & incorporating new information (SAM)
  - shows that thinking about the assault is not dangerous
- **habituation**
  - Prolonged and repeated exposure lowers anxiety and disconfirms that anxiety will last forever

Dual Representation Theory of Trauma Memory



Brewin, Dalgleish & Joseph, 1996

Dual Representation Theory of Trauma Memory



Brewin, Dalgleish & Joseph, 1996

Yet another paradox in PTSD

Why does re-experiencing not lead to habituation?

- Increased levels of arousal & distress
- Sufferer struggles to dismiss painful memories or images
- Terminates re-experiencing when anxiety still very high-
  - this can incubate the anxiety

Rationale for Imaginal Exposure

- discriminates between **remembering** and being **re-traumatised**
- **increased mastery**
  - enhances sense of self-control and competence
- **discrimination**
  - exposure will decrease the generalisation from **specific** to **similar but safe situations**
- intrusive, distressing traumatic memories are the **primary feared stimuli** in PTSD
  - can not be confronted *in vivo*

Rules for Imaginal Exposure

- IE should be **graded** – optimal SUDs = 70
  - Generate a hierarchy whether for single (less needed on occasions) or multiple traumas
- IE should be **prolonged**
- IE should be **repeated** (including as homework)
  - Usually 3-4 on same stimulus
- IE should be **functional**
  - meaning all aspects of trauma memory are accessed (especially accompanying affect)
  - a moderately high level of arousal will be needed
  - this is harder in IE than *in vivo*
  - may mean new material comes up

Overview of imaginal exposure (i)

1. present the **rationale** for imaginal exposure
2. be alert to patient's anxiety - **provide reassurance**
3. explain that the session will be **audiotaped** for their use as homework (NB should note SUDs)
4. Sessions 1-2 ask patient to describe the trauma with **eyes open**
5. Sessions 1-2 ask patient to **recall the trauma** in the **past tense**
6. i.e., IE sessions 1 & 2 allow them to approach the memory gradually & determine the level of detail
7. Later sessions – **eyes closed** & recall the trauma in **present tense**

Overview of imaginal exposure (ii)

8. in **IE session 3 onwards** ask probing questions regarding the emotional and physiological reactions
9. **every few minutes do a SUDs**
10. continue for **30-60mins**
    - terminate by asking them to open their eyes and take a breath and "let it go"
    - **allow time** after IE for patient to become calm
    - leave enough time for session

Eye Movement Desensitisation & Reprocessing (EMDR)

.....for PTSD

EMDR: what is it?

- a cognitive-behavioural technique
- it essentially combines elements of cognitive therapy with exposure
- But it is more than pure exposure
  - i.e., speed of change
  - dual-attentional focus

Introduction

- **“doses” of exposure**
- may be highly effective after only a few sessions
- large number of controlled studies supporting the use of EMDR in PTSD.

What is EMDR & what is its theoretical basis ?

- a **package** of therapeutic elements
- unclear whether eye movements are needed
- other forms of lateral stimulation, e.g. **finger taps**, may be equally effective
- **rapid left-right sensory stimulation** in some modality does seem to facilitate information processing

Role of eye movements ?

Possibilities ……

- **distraction** from anxiety might produce change given right expectations
- **Exposure** technique (s)
  - research has **not** supported other distraction techniques as beneficial
  - **experience of EMDR** is not being distracted from it, experiencing it more

Shapiro's Accelerated Information Processing (AIP) model

- traumatic experiences are held **dysfunctionally** in the nervous system where they are **blocked from being processed** due to the way in which traumatic experiences are encoded in the brain

- removing the blockage through EMDR results in **healthy adaptation**

Shapiro's Accelerated Information Processing (AIP) model

- neurological model is a construct to help others to understand.
- uses neuro-physiological language but it is a **metaphor** which makes allusions to the physiological mechanisms in the brain

Components of EMDR

Exposure

- focus is on a picture epitomising the trauma
- emotions & physical sensations linked to the trauma are identified and rated
- subjective evaluation of physiological reactions (SUDS)
- information processing is facilitated in dosed, short exposures

Components of EMDR

Cognitive restructuring

- a negative cognition is elicited
- an alternative positive cognition is identified and rated for validity (VoC)
- Cognitive interweave during EMDR

EMDR

- if EMDR preferred by patients and clinicians then it is likely to be used more than IE
- Non-directive (patient in control and creating own healing atmosphere) *i.e., therapist stays out of the way*.
- EMDR as a process is both **experience** (i.e., non-reflective "doing") and **reflection** (i.e., intending and reflecting upon the "doing"). This is done in small doses
- Emphasis on movement of information, *working on past, present & future*
  - *This is the standard EMDR protocol*

EMDR

- **Guilt** is prominent in PTSD - EMDR helpfully incorporates exposure and cognitive therapy elements
- **"unspeakable"** nature of some phases of PTSD suggests the use of **exposure** techniques such as EMDR
- importantly, the **reactivation of memory** does not require it to be put into communicable language

Summary (i)

- a package of therapeutic elements
- unclear whether eye movements are needed
- other forms of lateral stimulation, e.g. finger taps, may be equally effective
- rapid left-right sensory stimulation in some modality does seem to facilitate information processing
- Cognitive components stressed as important (i.e., PC & NC, and cognitive interweave)
- Performed in the here and now using affect and sensations

Summary (ii)

- EMDR is more than pure exposure.
- Gains in EMDR treatment are achieved more quickly than in controlled exposure studies
- Exposure in EMDR comes in short doses and includes a cognitive component not evident in flooding
- EMDR and traditional exposure therapies appear roughly equal in effectiveness

Summary of psychological treatments for PTSD

Summary of psychological treatments (i)

- well established treatments but no panacea
- Exposure, EMDR and CT are the central treatments
- problem based treatment better than concentrating on “core criteria”

Summary of psychological treatments (ii)

- non-core symptoms may be significant source of distress
- specific protocols exist for particular symptoms
- guilt may be pervasive and chronic
- exposure programs can be limited by the realities of life
- combination therapies not yet shown to confer an advantage.
  - may be due to decreased time spent on each component

and lest we forget.....

Impact of trauma care on staff

- most will cope
- possible burnout
- senior staff are not impervious
- a balance between empathy and professional distance
- treating trauma survivors shows us resilience - “gifts” of viewing +ve adaptation for those in the trenches