Treating combat-related PTSD

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Video: Combat scene 1

Scene 7

Video: Responding to tragedy

Scene 12, 2:42

Understanding military culture

Warrior culture	Mental Health culture
• Strength, resilience, courage, personal sacrifice	• Illness, clinical, deficiency-oriented
• Elitism, superiority	• Injury, problems, disorders
• Mental toughness	• Emotional vulnerability
• Collectivism, group identity	• Individualized, one-on-one
• Inner strength, self-reliance	• Seek help from others

PTSD: DSM-IV-TR criteria

A. Stressor
B. Re-experiencing symptoms
C. Avoidance
D. Hyperarousal
E. Duration
F. Functional impairment

PTSD: DSM-IV-TR criteria

A. Stressor

B. Re-experiencin

C. Avoidance

D. Hyperarousal

E. Duration

F. Functional impairment

Must have exposure to event in which <u>both</u> have been present:

1. Experienced, witnessed, or been confronted with event involving actual or threatened death or serious injury, or threat to physical integrity of oneself or others
2. Response involved intense fear, helplessness, or horror

PTSD: DSM-IV-TR criteria

A. Stressor

B. Re-experiencing symptoms

C. Avoidance

D. Hyperarousal

E. Duration

F. Functional impa

Event is persistently re-experienced in at least one of the following ways:

1. Recurrent and intrusive distressing memories, including images, thoughts, or perceptions
2. Recurrent distressing dreams
3. Acting or feeling as if the event were recurring
4. Intense distress at exposure to internal or external cues symbolizing or resembling the event
5. Physical reactivity upon exposure to internal or external cues that resemble the event

PTSD: DSM-IV-TR criteria

A. Stressor

B. Re-experiencin

C. Avoidance

D. Hyperarousal

E. Duration

F. Functional impa

Persistent avoidance of stimuli associated with trauma, and numbing of general responsiveness as indicated by at least three of the following:

1. Efforts to avoid thoughts, feelings, or conversations associated with event
2. Efforts to avoid activities, places, or people associated with event
3. Inability to recall details of event
4. Diminished interest or participation in activities
5. Feeling detached from others
6. Restricted emotional range
7. Sense of foreshortened future

PTSD: DSM-IV-TR criteria

A. Stressor

B. Re-experiencin

C. Avoidance

D. Hyperarousal

E. Duration

F. Functional impairment

Persistent symptoms of increased arousal indicated by at least <u>two</u> of the following:

1. Difficulty falling or staying asleep
2. Irritability or outbursts of anger
3. Difficulty concentrating
4. Hypervigilance
5. Exaggerated startle response

PTSD: DSM-IV-TR criteria

A. Stressor

B. Re-experiencing symptoms

C. Avoidance

D. Hyperarousal

E. Duration

Must occur for longer than one month following the event

F. Functional impairment

PTSD: DSM-IV-TR criteria

A. Stressor

B. Re-experiencing symptoms

C. Avoidance

D. Hyperarousal

E. Duration

Must cause clinically significant distress or impairment in social, occupational, or other important areas of functioning

F. Functional impairment

Common misunderstandings

1.

Combat exposure causes PTSD

- Combat is a significant predictor of PTSD across numerous studies (Grieger et al., 2006; Hoge, Auchterlonie, & Milliken, 2006; Hoge et al., 2004; Hotopf et al., 2006; Kolkow et al., 2007; U.S. Department of the Army, 2006b)

- As combat intensity increases, so does the likelihood of PTSD (Castro & McGurk, 2007)

Study suggests feelings of guilt may be a top factor in PTSD

By Gregg Zoroya, USA TODAY

Updated 11/25/2011 1:32 AM

A leading cause of post-traumatic stress disorder is guilt that troops experience because of moral dilemmas faced in combat, according to preliminary findings of a study of active-duty Marines.

Common misunderstandings

2.

It's not possible to be in combat without acquiring some level of PTSD

- Reintegration/adjustment difficulties are not the same as PTSD
- Contextual adaptability of “subthreshold PTSD symptoms”
- Daily hassles contribute to psychological distress above and beyond trauma exposure (Heron & Bryan, 2012)

Common misunderstandings

3.

PTSD is common among combat veterans

- Estimated rates of PTSD among combat veterans vary across studies from 5-15%
  (Tanielien & Jaycox, 2008)

85-95%

OEF/OIF combat veterans without PTSD

Common misunderstandings

4.

PTSD is a chronic condition

42-66%

percent recovery rate from PTSD among those who start cognitive processing therapy

64-74%

percent recovery rate from PTSD among those who complete cognitive processing therapy

(Resick et al., 2008)

After 1 year, those who complete prolonged exposure treatment

80% maintained gains

12% further improved

8% showed some relapse

(Foa et al., 2005)

~80%

percent remained recovered

5 to 10 years following

CPT and PE

(Resick et al., 2012)

Prolonged Exposure (PE)

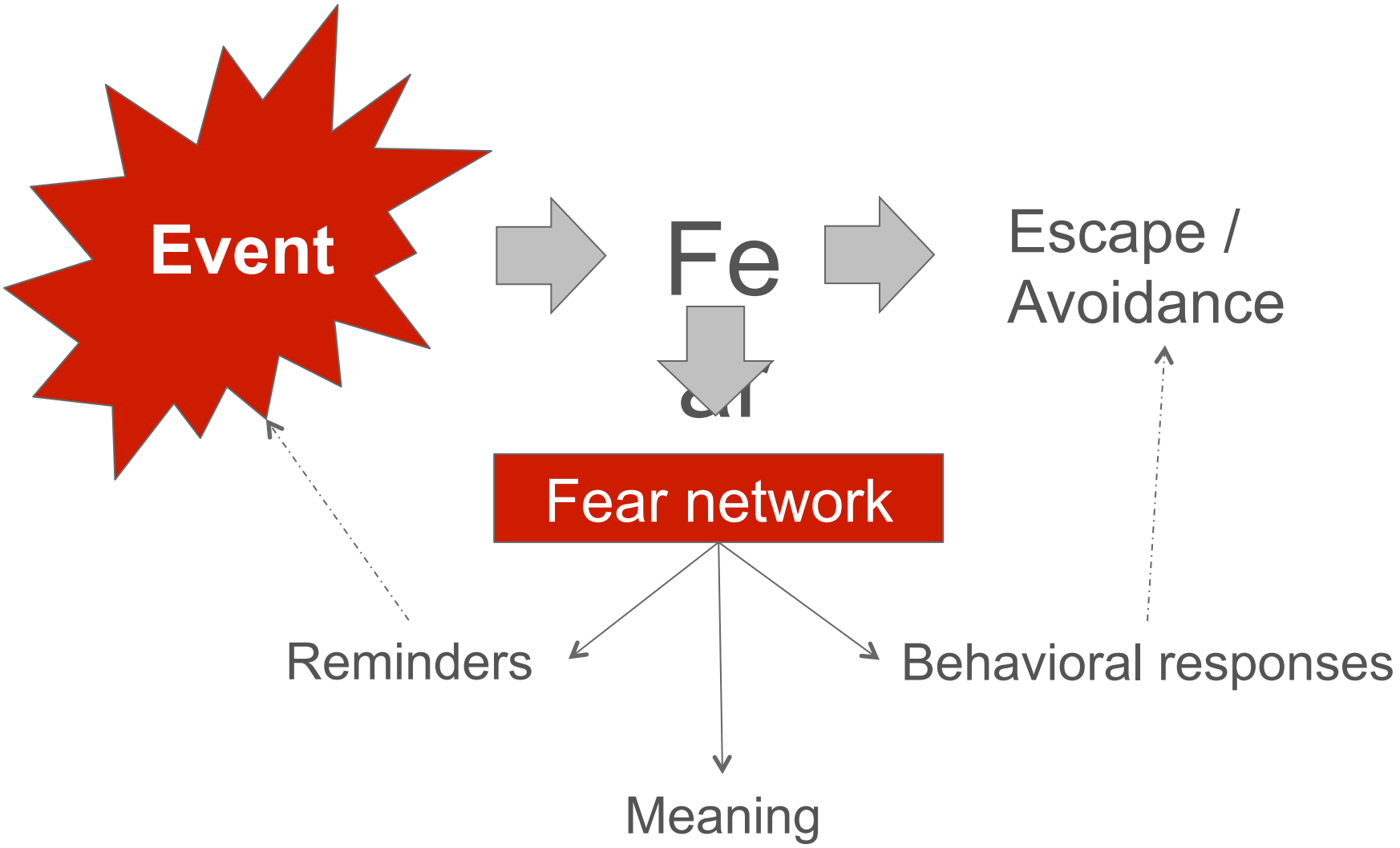
Model of PTSD

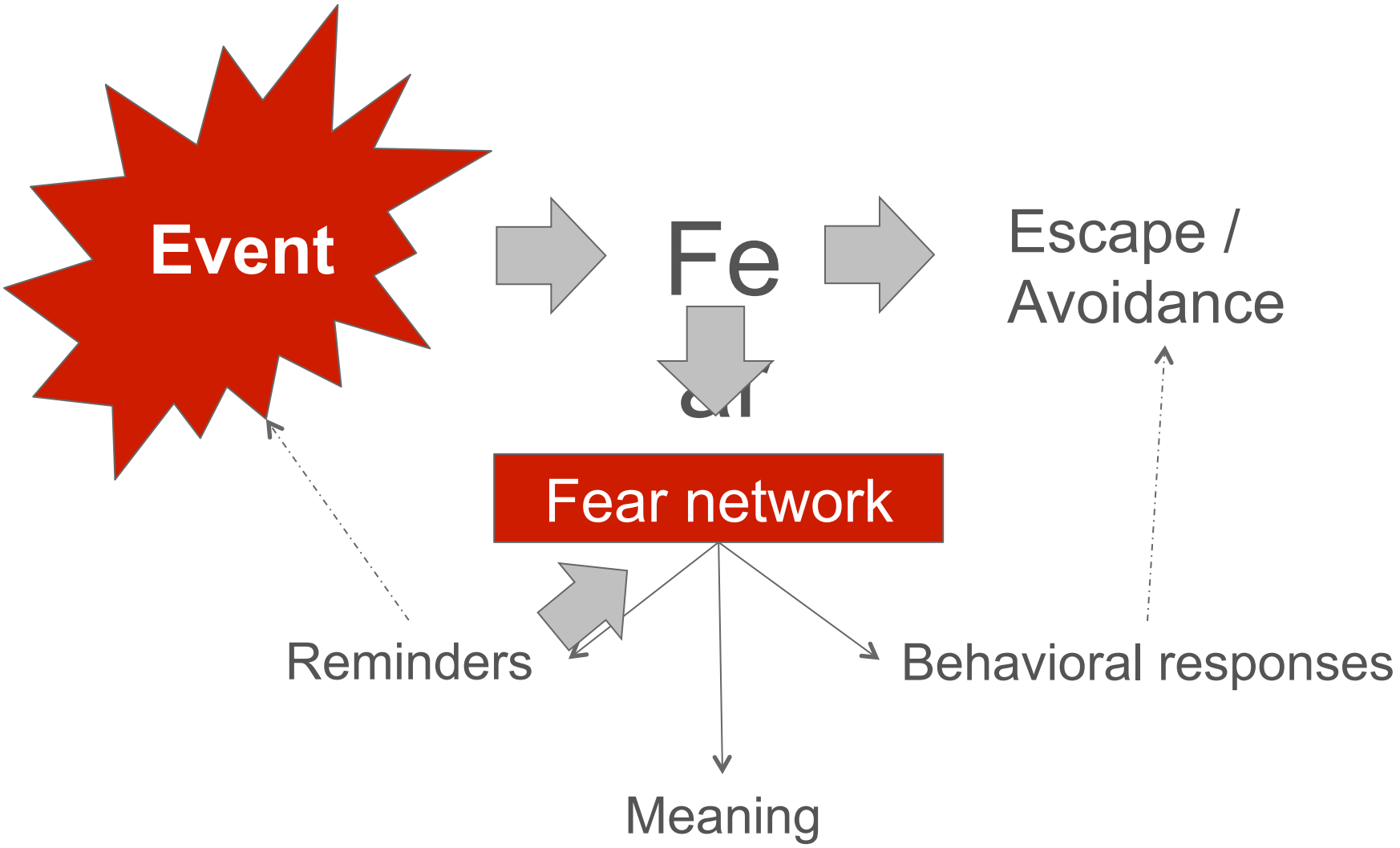
- Based on emotional processing theory
  (Lang, 1977; Foa, Steketee, & Rothbaum, 1989)

- PTSD emerges due to development of fear network in memory that elicits escape and avoidance behavior
  - Associations with trauma (e.g., memories, thoughts, stimuli) can activate fear network

- Fear network in individuals with PTSD is stable and broadly generalized so it is easily accessed

- When fear network is activated by reminders of trauma, information in the fear network becomes conscious (i.e., intrusive symptoms)


Event
Fe
Escape / Avoidance
Fear network
Reminders
Behavioral responses
Meaning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Meaning

Theory of treatment

- Emotional processing of the traumatic event is the central mechanism of change

- Repetitive exposure to traumatic memory in safe environment will cause habituation to fear and change in fear structure

Theory of treatment

- As fear decreases, patients will change meaning elements spontaneously and will reduce generalization

Treatment Overview

- Structure
  - Ten 90-minute sessions
  - 1 to 2 sessions per week
  - Sessions are audio recorded

- Components / procedures:
  1. Education about trauma, rationale for PE
  2. Breathing retraining
  3. In vivo exposure
  4. Imaginal exposure

Event	SUDS
Watching news about Iraq/Afghanistan	25
Driving on side roads	50
Driving down the interstate	75
Going to restaurants	80
Going to Walmart	100

Event	SUDS
Going to Walmart after midnight on weekdays	0
Hearing cannon at end of day	10
Watching news about Iraq/Afghanistan	25
Driving in my neighborhood	30
Driving down interstate 25 in afternoon	40
Driving under overpasses	50
Driving down interstate 25 in morning	75
Going to restaurants	80
Going to Walmart on weekends during day	100

- Session 1
  - Overall rationale for PE
  - Trauma interview
  - Breathing skills to help manage anxiety
- Homework:
  1. Review Rationale for Treatment handout
  2. Listen to session recording at least once
  3. Practice breathing retraining daily

- Session 2
  - Review homework
  - Education on common trauma reactions and rationale for in vivo exposure
  - Hierarchical list of safe/low-risk situations that have been avoided
- Homework:
  1. Complete in vivo exposure
  2. Practice breathing retraining daily
  3. Listen to session recording at least once
  4. Read Common Reactions to Trauma daily

- Session 3
  - Review homework
  - Rationale for imaginal exposure
  - Imaginal exposure for 45-60 mins, followed by 15-20 mins of discussion to facilitate emotional processing
- Homework:
  1. Complete in vivo exposure
  2. Practice breathing retraining daily
  3. Listen to session recording at least once

- Sessions 4 to 9
  - Review homework
  - Imaginal exposure for 30-45 mins, followed by 15-20 mins of discussion to facilitate emotional processing
  - 15 mins in-depth discussion of in vivo exposure
  - Starting around session 6, therapist encourages patient to increase detail of trauma account, and to start focusing on “hotspots”
- Homework:
  1. Complete in vivo exposure
  2. Practice breathing retraining daily
  3. Listen to session recording at least once

- Session 10
  - Review homework
  - Imaginal exposure for 20-30 mins, followed by 15-20 mins of discussion focused on how the experience of the exposure has changed over the course of therapy
  - Detailed review of patient's progress in therapy
  - Discussion of continued application of learned skills, relapse prevention, and treatment termination

Scientific support

- Most PE studies are with victims of sexual or physical assault, or military veterans

- To date, there are no published studies using PE with active duty military

- Percent recovered (i.e., no PTSD)

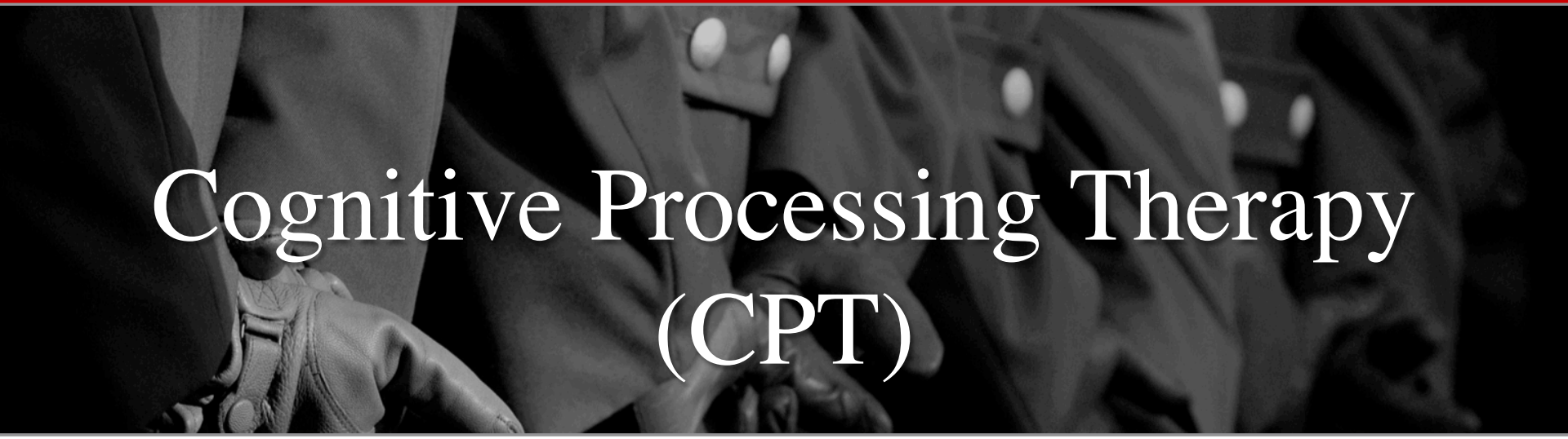
Treatment	PE	CS	PE+CS	EMDR	PCT	Cont
Foa et al. (1999)	60%	42%	40%			0%
Rothbaum et al. (2005)	95%			75%		10%
Neuner (2004)	71%	21%				20%
Blanchard (2004)	76%	44%				
Falsetti (2001)	92%					33%
Schnurr et al. (2003)**	39%				38%	
Bryant (2003)	50%					33%
Echeburua et al. (1997)	90%	10%				
Schnurr et al. (2007)**	41%				28%	
Fectau & Nicki (1999)	50%					0%

- Most studies report outcomes up to 1 year post-treatment

- Recent study reports gains made in PE are maintained for 5 to 10 years post treatment (Resick et al., 2012)

Video: Combat scene 2

Scene 2, 2:15



Cognitive Processing Therapy (CPT)

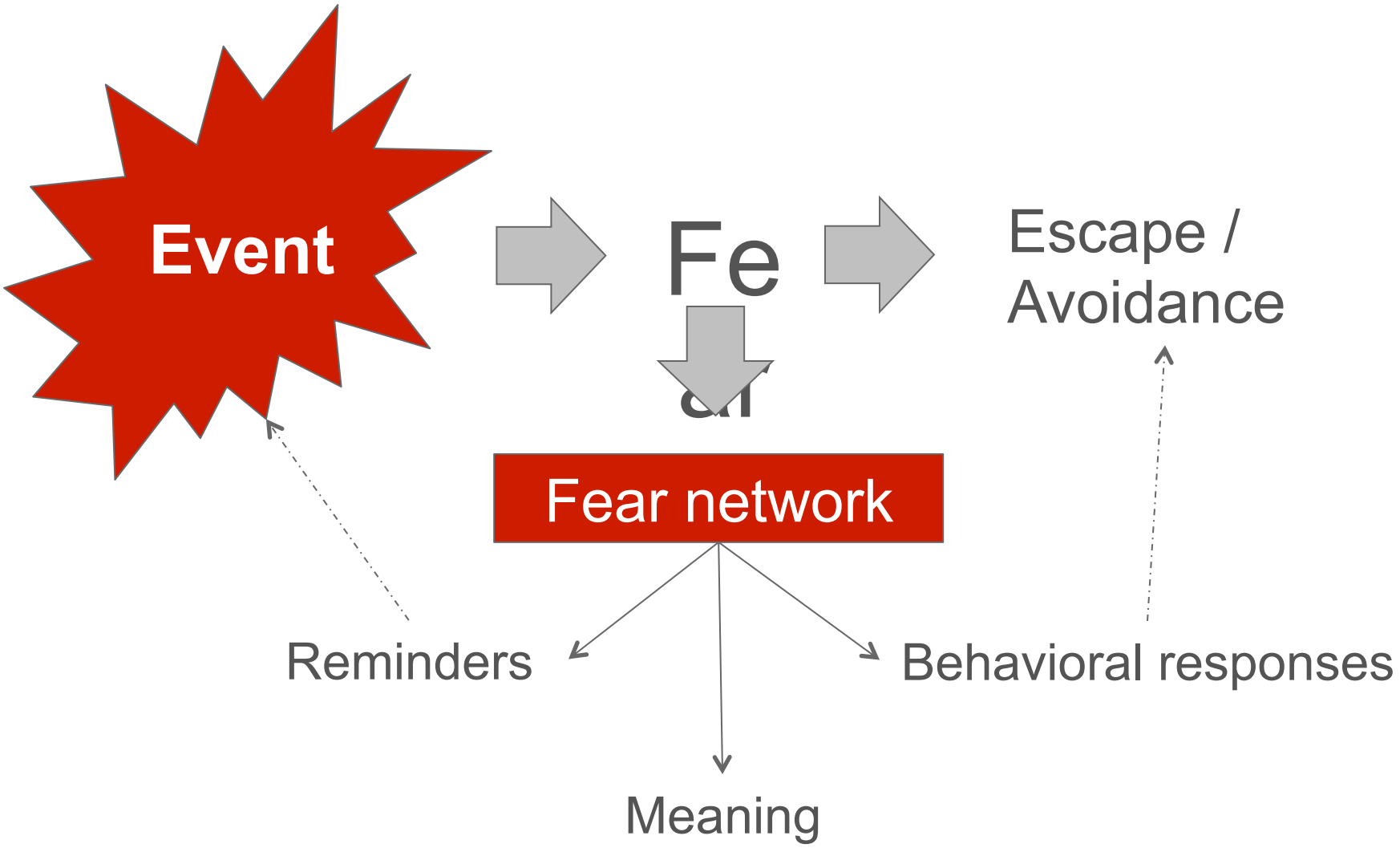
Model of PTSD

- Based on social-cognitive theory focused on *how* the traumatic event is constructed and coped with by the individual

- Individual is trying to regain a sense of mastery and control over their life

- Primary emotions may come directly from the trauma: fear, anger, sadness

- Secondary (manufactured) emotions come from faulty interpretations about the trauma: guilt, shame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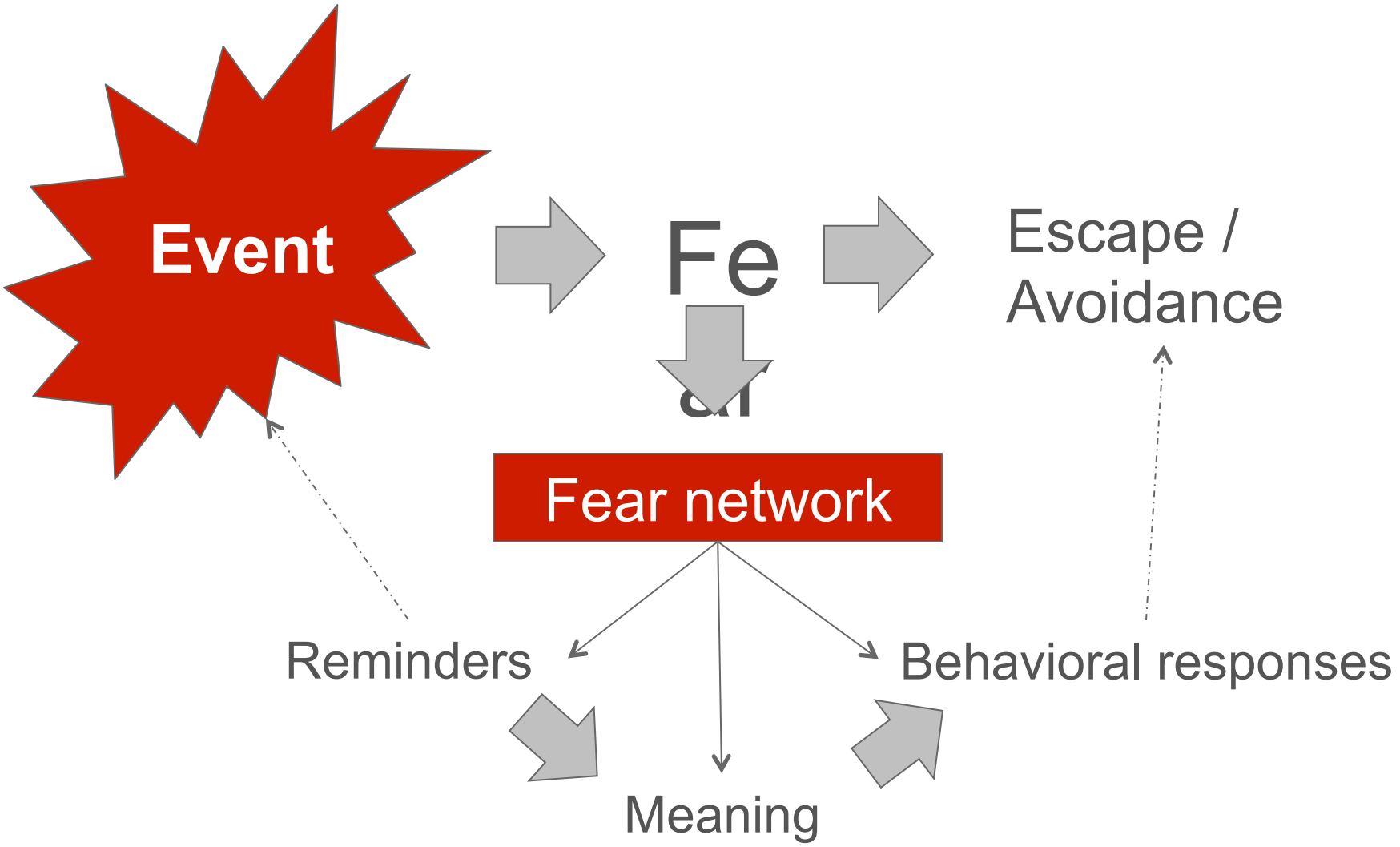
Event
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Reminders
Behavioral responses
Meaning

- Content of beliefs determine emotional responses and behavior
  - **Assimilation:** altering incoming information to match prior beliefs
  - **Accommodation:** altering beliefs enough to incorporate new information
  - **Overaccommodation:** altering beliefs to an extreme in order to feel safer and in control

Assimilation

"Because a bad thing happened to me, I must have been punished for something I did."

Accommodation

"Although I didn't use good judgment in that situation, most of the time I make good decisions."

Overaccommodation

"I can't ever trust my judgment again."

Theory of treatment

- Immediately following traumatic stress, PTSD symptoms are nearly universal

- PTSD is best understood as failure of normal recovery
  - Maladaptive beliefs or “rules” stall or interfere with normal recovery

- Emotional expression is needed not for the purposes of habituation but for the emotional elements of the trauma to be changed

- Once faulty beliefs are challenged, secondary emotions will decrease along with intrusive reminders

Treatment Overview

- Structure
  - Twelve 60-minute sessions
  - 1 session per week

- Components / procedures:
  1. Education about trauma, rationale for CPT
  2. Cognitive restructuring via Socratic questioning

- Session 1
  - Education about PTSD and depression symptoms
  - Rationale for CPT
  - Brief review of traumatic event
  - Elicit treatment adherence
- Homework:
  - Impact statement

Impact statement

Practice Assignment:
Please write at least one page on why you think this traumatic event occurred. You are not being asked to write specifics about the traumatic event. Write about what you have been thinking about the cause of the worst event. Also, consider the effects this traumatic event has had on your beliefs about yourself, others, and the world in the following areas: safety, trust, power/control, esteem, and intimacy. Bring this with you to the next session. Also, please read over the handout I have given you on stuck points so that you understand the concept we are talking about.

- Session 2
  - Patient reads impact statement, therapist begins to identify stuck points
  - Discussion of meaning of impact statement
    - Identify assimilations and overaccommodations
  - Education on how events, thoughts, and feelings connect
  - Teach ABC worksheets and practice together
- Homework:
  - At least one ABC worksheet per day, one of which must focus on traumatic event

ABC worksheet

ACTIVATING EVENT A "Something happens"	BELIEF B "I tell myself something"	CONSEQUENCE C "I feel something"

Are my thoughts above in "B" *realistic*?

_____

What can you tell yourself on such occasions in the future?

_____

_____

_____

- Session 3
  - Review ABC worksheets, including trauma worksheet
  - Review trauma with regard to acceptance or self-blame issues
  - Socratic questioning of stuck points
- Homework:
  - At least one ABC worksheet per day, one of which must focus on traumatic event

- Session 4
  - Review ABC worksheets, including trauma worksheet
  - Socratic questioning of stuck points
  - Teach Challenging Questions worksheets and practice together
- Homework:
  - At least one Challenging Questions worksheet per day, one of which must focus on traumatic event

Challenging Questions worksheet

Below is a list of questions to be used in helping you challenge your maladaptive or problematic beliefs. Not all questions will be appropriate for the belief you choose to challenge. Answer as many questions as you can for the belief you have chosen to challenge below.

Belief: _____

1. What is the evidence for and against this idea?
   FOR:

   AGAINST:

2. Is your belief a habit or based on facts?

3. Are your interpretations of the situation too far removed from reality to be accurate?

4. Are you thinking in all-or-none terms?

5. Are you using words or phrases that are extreme or exaggerated (i.e., always, forever, never, need, should, must, can't, and every time)?

6. Are you taking the situation out of context and only focusing on one aspect of the event?

7. Is the source of information reliable?

8. Are you confusing a low probability with a high probability?

9. Are your judgments based on feelings rather than facts?

10. Are you focused on irrelevant factors?

- Session 5
  - Review Challenging Questions worksheets
  - Socratic questioning of stuck points
  - Teach Patterns of Problematic Thinking worksheets and practice together
  - Education about importance of balance in beliefs, rather than extreme, either/or thinking
- Homework:
  - At least one Challenging Questions worksheet per day, one of which must focus on traumatic event
  - At least one Patterns of Problematic Thinking worksheet per day

Patterns of problematic thinking

Listed below are several types of patterns of problematic thinking that people use in different life situations. These patterns often become automatic, habitual thoughts that cause us to engage in self-defeating behavior. Considering your own stuck points, find examples for each of these patterns. Write in the stuck point under the appropriate pattern and describe how it fits that pattern. Think about how that pattern affects you.

1. **Jumping to conclusions** when the evidence is lacking or even contradictory.

2. **Exaggerating or minimizing** a situation (blowing things way out of proportion or shrinking their importance inappropriately).

3. **Disregarding important aspects** of a situation.

4. **Oversimplifying** things as good/bad or right/wrong.

5. **Over-generalizing** from a single incident (a negative event is seen as a never-ending pattern).

6. **Mind reading** (you assume people are thinking negatively of you when there is no definite evidence for this).

7. **Emotional reasoning** (you have a feeling and assume there must be a reason).

- Session 6
  - Review Challenging Questions and Patterns of Problematic Thinking worksheets
  - Teach Challenging Beliefs worksheets and practice together
- Homework:
  - At least one Challenging Beliefs worksheet per day, several of which must focus on traumatic event

Challenging beliefs worksheet

A. Situation	B. Thought(s)	D. Challenging Thoughts	E. Problematic Patterns	F. Alternative Thought(s)
Describe the event, thought or belief leading to the unpleasant emotion(s).	Write thought(s) related to Column A. Rate belief in each thought below from 0-100% (How much do you believe this thought?)	Use **Challenging Questions** to examine your automatic thoughts from Column B. Is the thought balanced and factual or extreme?	Use the **Patterns of Problematic Thinking Worksheet** to decide if this is one of your problematic patterns of thinking.	What else can I say instead of Column B? How else can I interpret the event instead of Column B? Rate belief in alternative thought(s) from 0-100%
		Evidence For? Evidence Against? Habit or fact? Interpretations not accurate? All or none? Extreme or exaggerated? Out of context? Source unreliable? Low versus high probability? Based on feelings or facts? Irrelevant factors?	Jumping to conclusions: Exaggerating or minimizing: Disregarding important aspects: Oversimplifying: Over-generalizing: Mind reading: Emotional reasoning:	
	C. Emotion(s) Specify sad, angry, etc., and rate how strongly you feel each emotion from 0-100%			**G. Re-rate Old Thought(s)** Re-rate how much you now believe the thought(s) in Column B from 0-100% **H. Emotion(s)** Now what do you feel? 0-100%

- Session 7
  - Review Challenging Beliefs worksheets
  - Introduce Safety Module
  - Education on how previous beliefs about safety might have been disrupted or confirmed by the trauma
  - Use Challenging Beliefs worksheets to challenge safety beliefs
- Homework:
  - Read Safety Module
  - At least one Challenging Beliefs worksheet per day on safety issues

- Session 8
  - Review Challenging Beliefs worksheets
  - Introduce Trust Module
  - Education on how previous beliefs about trust might have been disrupted or confirmed by the trauma
  - Use Challenging Beliefs worksheets to challenge trust beliefs
- Homework:
  - Read Trust Module
  - At least one Challenging Beliefs worksheet per day on trust issues

- Session 9
  - Review Challenging Beliefs worksheets
  - Introduce Power/Control Module
  - Education on how previous beliefs about power and control might have been disrupted or confirmed by the trauma
  - Use Challenging Beliefs worksheets to challenge power/control beliefs
- Homework:
  - Read Power/Control Module
  - At least one Challenging Beliefs worksheet per day on power and control issues

- Session 10
  - Review Challenging Beliefs worksheets
  - Introduce Esteem Module
  - Education on how previous beliefs about one's worth have been disrupted or confirmed by the trauma
  - Use Challenging Beliefs worksheets to challenge esteem beliefs
- Homework:
  - Read Esteem Module
  - At least one Challenging Beliefs worksheet per day on esteem issues
  - Give/receive compliments and do nice things for self

- Session 11
  - Review Challenging Beliefs worksheets
  - Review behavioral activities (compliments and doing nice things for self)
  - Introduce Intimacy Module
  - Education on how previous beliefs about intimacy might have been disrupted or confirmed by trauma
  - Use Challenging Beliefs worksheets to challenge intimacy beliefs
- Homework:
  - Read Intimacy Module
  - One Challenging Beliefs worksheet per day on intimacy
  - Continue giving and receiving compliments
  - Write final Impact Statement

- Session 12
  - Review Challenging Beliefs worksheets
  - Patient reads final Impact Statement, and compares to original Impact Statement
  - Discuss intimacy stuck points
  - Review entire therapy and identify remaining issues for continued work
- Homework:
  - Continue behavioral assignments
  - Continue using cognitive skills

Scientific support

- Fewer studies of CPT than PE

- To date, there are no published studies using PE with active duty military

- Percent recovered (i.e., no PTSD)

Treatment	CPT	PE	Cont
Resick et al. (2002)	53%	53%	2%
Monson et al. (2006)**	40%		3%
Chard (2005)	93%		26%
Resick et al. (2012)	78%	83%	

- Dismantling study of CPT (Resick et al., 2008)

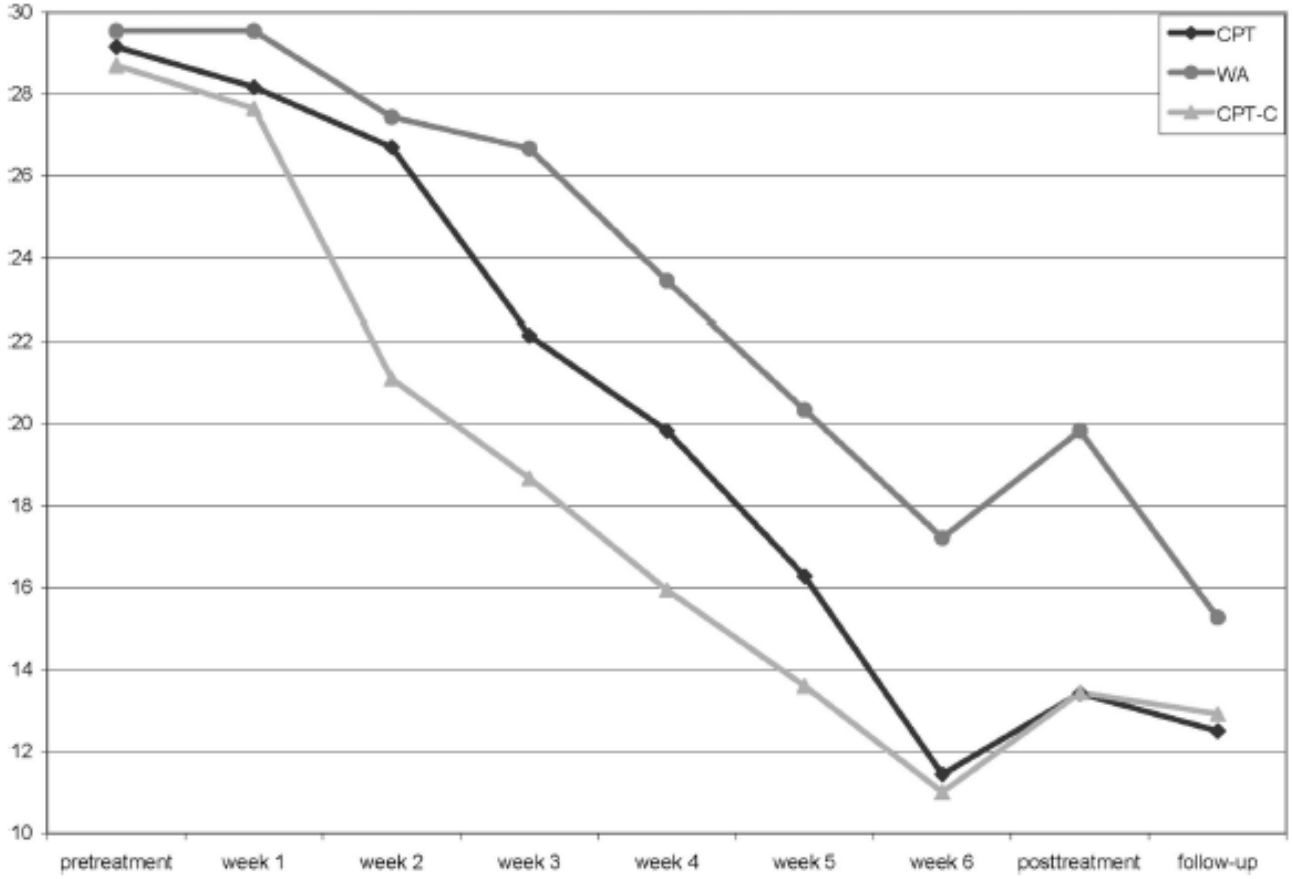

Figure 2. Posttraumatic Diagnostic Scale with categorical assessment interval of cognitive processing therapy (CPT), written accounts (WA), and cognitive therapy only (CPT-C).

Other treatment modalities: EMDR

Theory

- Based on an adaptive information processing model

- Humans have information processing system that generally processes multiple elements of experiences into adaptive state where learning occurs

- Memories are stored in linked networks organized around earliest related event and its associated emotion

- If information related to trauma is not fully processed, initial perception, emotions, and thoughts will be stored as originally experienced during trauma

- EMDR alleviates mental disorders by processing components of distressing memory

- Eye movements are considered to be an active and important component of the treatment

Treatment structure

- Phase 1
  - History-taking
  - Identification of possible targets for EMDR processing
- Phase 2
  - Teach imagery and stress reduction techniques for use in and between sessions

- Phases 3 to 6
  - Patient identifies vivid visual image related to trauma, negative belief about self, and related emotions/ physical sensations
  - Patient identifies positive belief
  - Patient engages in EMDR processing while focusing on memory, negative thoughts, and physical sensations until distress decreases
  - Patient thinks about positive belief

- Phase 7
  - Patient keeps log during week to document any trauma-related material and self-calming activities

- Phase 8
  - Examine process in therapy

Scientific support: IOM report

"The committee found the overall body of evidence for EMDR to be low quality to inform a conclusion regarding treatment efficacy. Four studies, three of medium and one of small sample size, had no major limitations, but only two showed a positive effect for EMDR. The committee is uncertain about the presence of an effect, and believes that future well-designed studies will have an important impact on confidence in the effect and the size of the effect."

(Institute of Medicine, 2007)

Does EMDR work for PTSD?

Yes

Results of meta-analyses indicate that EMDR has (at best) comparable efficacy as prolonged exposure, although studies tend to have very poor design

(Davidson & Parker, 2001; Van Etten & Taylor, 1998)

Do eye movements matter?

No

Rigorous studies comparing treatments with and without eye movements indicate no differences in outcomes, due in large part to very large variance among studies

(Davidson & Parker, 2001)

"What works in EMDR is not new, and what is new does not work."

Other treatment modalities: Medication

Types of medications studied

- Alpha-adrenergic blockers (prozasin)
- Anticonvulsants (topiramate, tiagabine, lamotrigine)
- Antipsychotics (olanzapine, respirodone)
- Benzodiazepines (alprazolam)
- Monoamine oxidase inhibitors (phenelzine, brofaromine)
- Selective serotonin reuptake inhibitors (sertraline, fluoxetine, paroxetine, citalopram)

Overall limitations

- Open-label or uncontrolled designs
- Very high dropout rates
- Poor handling of missing data
- Very short follow-up periods

Results of studies

- Alpha-adrenergic blockers (2 studies)
  - Findings: some reduction in combat-related nightmares and sleep disturbance
  - Limits: no focus on overall PTSD outcomes
  - IOM conclusion: "…the evidence is inadequate to determine the efficacy of prazosin in the treatment of PTSD." (2008, p. 3-2)

Results of studies

- Anticonvulsants (3 studies)
  - Findings: No effect on PTSD outcomes
  - Limits: very small samples sizes
  - IOM conclusion: "…the evidence is inadequate to determine the efficacy of anticonvulstants in the treatment of PTSD." (2008, p. 3-4)

Results of studies

- Antipsychotics (7 studies)
  - Findings: small positive effects
  - Limits: very high dropout rates
  - IOM conclusion: "…the evidence is inadequate to determine the efficacy of the novel antipsychotics olanzapine and risperidone in the treatment of PTSD." (2008, p. 3-7)

Results of studies

- Benzodiazepines (1 study)
  - Findings: Cannot be determined
  - Limits: very small sample size, high dropout, and did not address missing values
  - IOM conclusion: "…the evidence is inadequate to determine the efficacy of benzodiazepines in the treatment of PTSD." (2008, p. 3-10)

Results of studies

- MAOIs (4 studies)
  - Findings: No effect on PTSD outcomes
  - Limits: very small samples sizes, high dropout rates
  - IOM conclusion: "…the evidence is inadequate to determine the efficacy of the MOAIs phenelzine and brofaromine in the treatment of PTSD." (2008, p. 3-12)

Results of studies

- SSRIs (14 studies)
  - Findings: No effects to very small effects on PTSD outcomes
  - Limits: high dropout rates and poor handling of missing data
  - IOM conclusion: "…the evidence is inadequate to determine the efficacy of SSRIs in the treatment of PTSD." (2008, p. 3-16)

Conclusions / Summary

Video: Posttraumatic growth

Scene 11, 2:30

PE and CPT consistently demonstrate positive effects on PTSD as compared to control conditions and other therapies

Patients who experience remission from PTSD following PE and CPT maintain gains for very long periods of time

Medications may be useful for managing or alleviating symptomatic distress, but overall magnitude of effects are much smaller and less consistent relative to CBT

Medications might be most useful as an adjunct to PE or CPT

Resources

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Treatment manuals

Cognitive Processing Therapy

Cognitive Processing Therapy for Rape Victims: A Treatment Manual

--Patricia Resick & Monica Schnicke

Prolonged Exposure Therapy

Prolonged Exposure Therapy for PTSD: Emotional Processing of Traumatic Experiences: Therapist Guide

--Edna Foa, Elizabeth Hembree, & Barbara Rothbaum

Intensive training

Center for Deployment Psychology

http://deploymentpsych.org/training/workshops

Association for Behavioral & Cognitive Therapies

www.abct.org

Questions?

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