Evidence-based treatment for post-disaster traumatic stress

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Overview of talk

- Best practice approaches for post-disaster traumatic stress across time periods
- Core elements of CBT
- National Center for PTSD's manualized intervention for Post-disaster Distress

Foa and Meadows' "Gold Standards" for Clinical Research

1. clearly defined target symptoms
2. reliable and valid measures
3. blind evaluators
4. assessor training
5. manualized, replicable specific treatment programs
6. random assignment to treatment
7. objective treatment adherence measure

Immediate Phase Interventions: 1st 2 weeks

- High evidence: none
- Low evidence base, (although widely applied):
  - Outreach – primarily Psychological First Aid
  - Critical Incident Stress Debriefing

Psychological First Aid: 1st 2 weeks

- Not a therapeutic technique, per se
- Refers to the provision of warmth and basic human comfort and support. Does not promote emotional processing or disclosure of traumatic experiences. Flexible, supportive, problem-solving. No formal research support exists.
- Considered to be “non-toxic” and “evidence-consistent” by NIMH expert panel

Debriefing: 1st 2 weeks

- Also widely applied at present. HOWEVER, At least 12 well designed randomized controlled trails (RCTs) of debriefing as early intervention have been published. Most find no effect or slight worsening of symptoms
- Multiple reviews have concluded that debriefing is ineffective at best or harmful at worst
- Caveats: Lack of uniformity/standardization of interventions, more severe injuries (despite randomization) in debriefed grp in 3 debriefing studies that found worse outcomes in debriefed group.

NIMH Expert Panel Recommendations: 1st 2 weeks

Recommended:

- PFA appears evidence-consistent, non-toxic.

Not recommended:

- CISD (given the negative findings and the findings re: worsening of sx)
- CBT and EMDR may be contra-indicated, given that they both encourage disclosure and emotional processing and may interrupt a necessary down-time. Systematic research lacking for 1st 2 weeks

Early interventions (2 wks-3 mos):

- High Evidence: None
- Medium Evidence: Cognitive behavioral therapy (CBT)
- Low Evidence: Debriefing, EMDR, Alternative Interventions

Early interventions (2 wks- 3 mos)

- **Critical Incident Stress Debriefing (CISD)**
  - psychoeducation, normalization of stress reactions, promotion of emotional processing through discussion of the experience
- **Cognitive behavioral therapy (CBT)**
  - Psychoeducation, exposure, breathing retraining, cognitive restructuring

CISD as early intervention

- At least 12 RCTs of CISD as early intervention
- Multiple reviews have concluded that debriefing is ineffective at best or harmful at worst
- Caveats: Lack of uniformity of interventions, more severe injuries (despite randomization) in debriefed grp in 3 debriefing studies that found worse outcomes in debriefed group

CBT as early intervention

- 5 of 6 studies showed CBT outperformed supportive interventions in the first month post-trauma
  - MVA/industrial accident/assault survivors (Bryant et al., 1998; 1999; 2005)
  - Sexual assault survivors (Echeburua et al., 1996; Foa et al., 1995)
- One study found CBT equivalent to supportive intervention in MVA survivors, but had unique methodological limitations (Brom et al. 1993)
- Practical issues: availability of trained therapists, client willingness to engage in CBT

CBT: Primary Components

- Psychoeducation
- Active problem-solving, coping skills
- **Cognitive Restructuring**
- **Exposure exercises** (primarily for anxiety disorders)

Cognitive Restructuring

- Target the connection between thoughts, feelings, and behaviors
- Focus on identifying underlying problematic beliefs and changing problematic, habitual thinking patterns
- Typically utilizes “homework” for identification of and challenging of problematic thoughts

Example thinking “targets”

- “I can’t survive another hurricane season”
- “Flying is extremely dangerous”
- “I don’ t deserve to have survived Katrina, since my husband did not”

Exposure Components

- Used for many anxiety disorders
- Confronting “fear of fear”
- Confront avoided places, thoughts, feelings, or situations in a safe manner
- Often done with assistance of friend or family member
- Often work on exposure assignments for homework

Bryant et al. 1998 ASD trial

- 10 days post trauma
- Random assignment of 24 accident survivors with ASD to five 1.5 hr individual sessions of CBT vs. supportive counseling
- CBT group showed decreased incidence of PTSD at post-tx & 6 month follow-up
- CBT group showed greater reductions in depressive sx

- **Bryant et al. 1998**

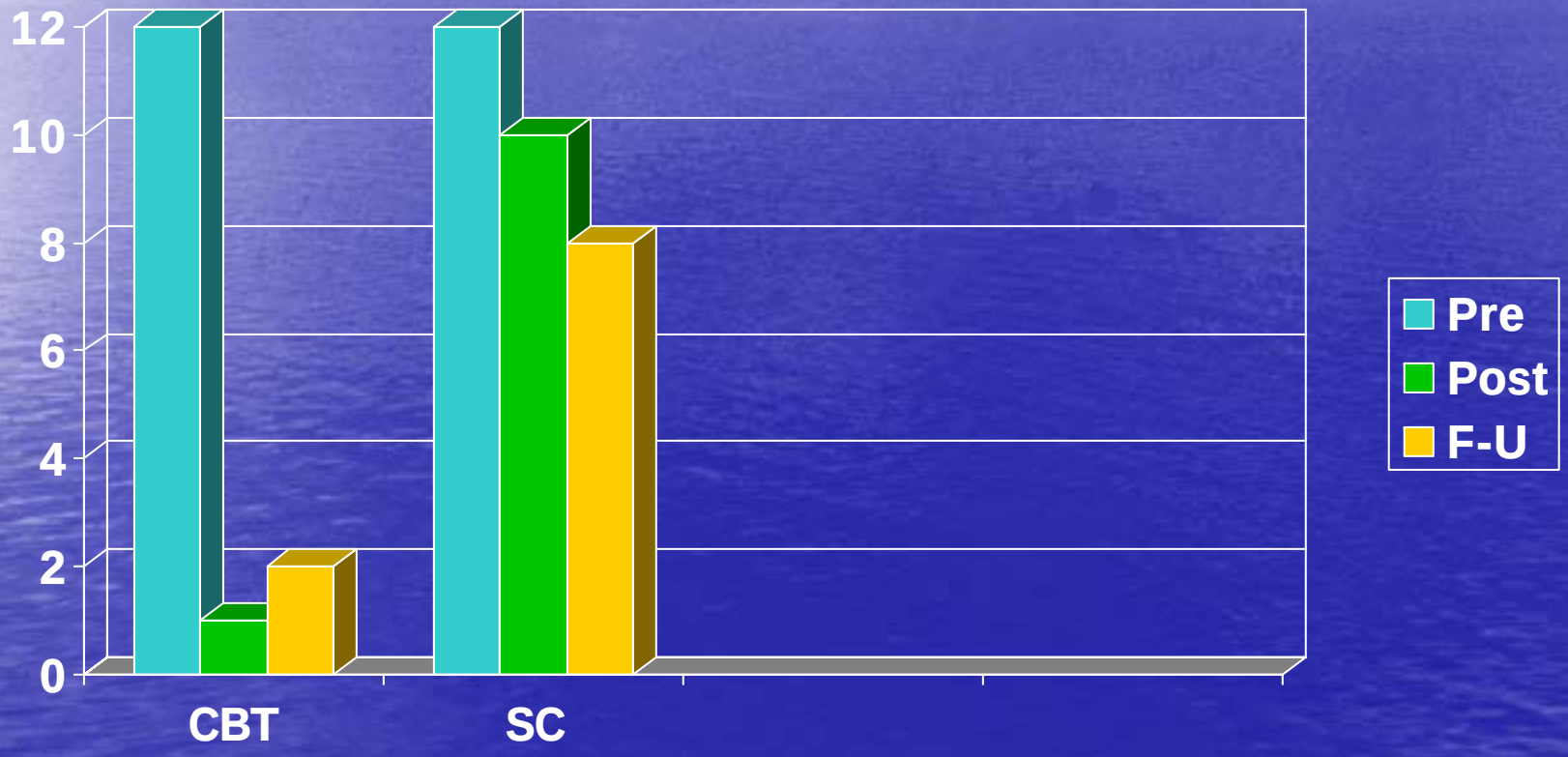
CBT condition

- Education about trauma reactions
- Progressive muscle relaxation training
- Imaginal exposure to traumatic memories
- Cognitive restructuring of fear-related beliefs
- Graded *in vivo* exposure to avoided situations
- HW: practice imaginal exposure

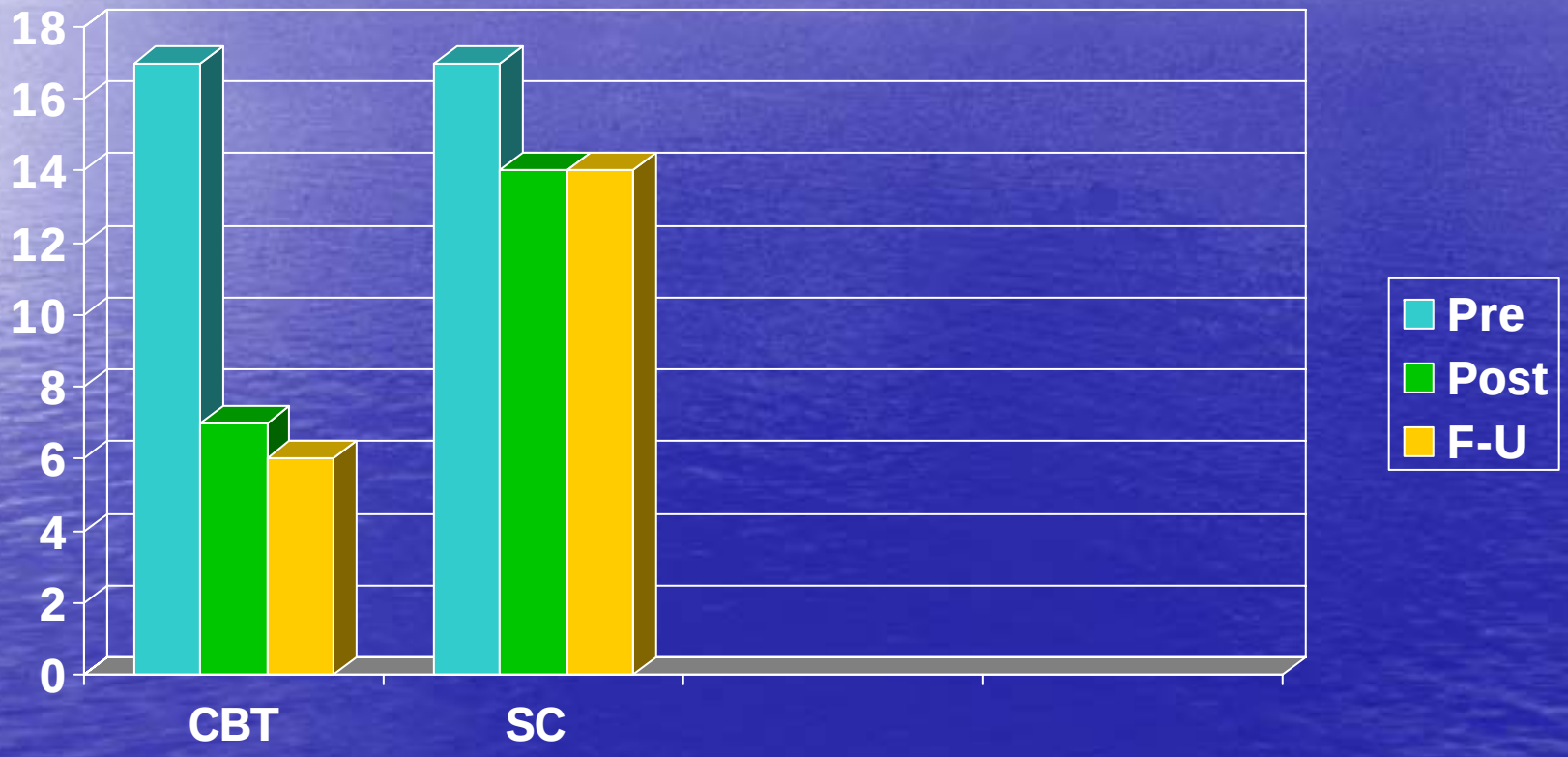
Supportive counseling condition

- Education about trauma
- General problem-solving
- Unconditional support
- HW: diary keeping of current problems and mood states

ASD and PTSD Caseness



BDI scores



4-year follow-up, N=41

- Tracked down 41 eligible participants of 80 from 2 tx studies (64%)
- 25 of original 41 CBTers (62%)
- 16 of 24 SC pts (67%)
- 2 (8%) of CBT pts and 4 (25%) SC pts met PTSD criteria
- CBT pts had less intense PTSD sx and fewer avoidant sx

  - Bryant et al. 2003

Later-stage treatment: 3 Months & Onward

- High level of evidence:
  - Cognitive behavioral therapy (CBT)
- Medium level of evidence:
  - -- Eye Movement Desensitization and Reprocessing (EMDR)
- Low evidence:
  - Interpersonal, Psychodynamic/analytic, alternative treatments

A word on the EMDR vs. CBT Debate

- Proliferation of randomized controlled trials on EMDR over last few years, several that include CBT comparison
- Quality of studies favoring EMDR generally not of caliber of those favoring CBT
- Several studies have now found that eye movements do not contribute to outcome, raising question of whether the effective component of EMDR is actually exposure (a CBT component)

CBT for PTSD

- Multiple RCTs indicate CBT outperforms no-treatment and SC
- Debate about relative contributions of CR vs. Exposure
- Further research would help clarify which components of CBT are best tolerated, work most quickly, and are most efficacious

EMDR for PTSD

- 5 of 5 RCTs (CBT vs. EMDR) showed that both CBT and EMDR were efficacious in reducing PTSD sx

- 3 of 5 found slight superiority of EMDR; 2 found slight superiority of CBT in terms of sx reduction

Summary: Evidence base for early intervention

- High level of evidence:
  - none
- Medium level of evidence:
  - CBT
- Low levels of evidence:
  - CISD, EMDR, Psychodynamic therapy, "Alternative" therapies

Summary: evidence base for later-stage interventions

- High level of evidence:
  - CBT
- Medium level of evidence:
  - EMDR
- Low level of evidence:
  - Interpersonal, Psychodynamic/analytic therapy, “Alternative” therapies

National Center for PTSD Intervention for Postdisaster Distress

Evidence Informed Intervention

- Identified effective interventions for the range of problems most common after disasters
  - PTSD
  - Depression
  - Other anxiety disorders
- Selected core elements from these empirically supported treatments that were found across disorders

Overview

- An 8-12 session manualized intervention to treat a range of postdisaster symptoms
- Designed to be one part of larger disaster mental health system response
- To be implemented no sooner than 60 days postdisaster
- For individuals showing more than transient stress response
- Intermediate step between crisis counseling and longer term mental health treatment

Three Main Components

- Psychoeducation
  - –Taught in Session 1
- Anxiety management/Coping Skills
  - –Taught in Session 2
- Cognitive Restructuring (CR)
  - –Taught in Sessions 3 and 4
  - –Practiced in Sessions 5-8/12

Education Topics

- PTSD
- Common Reactions (anxiety, sadness, guilt/shame, anger)
- Depression
- Anxiety
- Substance abuse
- Grief/bereavement
- Sleep problems/nightmares
- Problems with functioning (work, relationships, physical)

Cognitive Restructuring

- Introduced in sessions 3 and 4; practiced through remainder of the treatment
- “Backbone” of treatment
- Clients taught connection between problematic thinking and feeling patterns
- Ultimate goal is to change problematic feelings/behaviors by putting thoughts into more realistic/balanced perspective.
- Can be used for wide variety of problematic cognitive, emotional, and behavioral patterns

Rationale for CR

- Feelings are connected to thoughts. Our thoughts greatly affect our mood
  - Examples: lying in bed and hear a loud noise
- Life experiences shape people's "automatic thoughts" and belief systems.
  - Traumatic experiences are a type of life experience that greatly shape our thinking.
- These thoughts are often automatic and we may not be aware of them.
  - First step is to become aware of our thoughts

Problematic Thinking Styles

- Goal: To teach clients to identify Problematic Thinking Styles that they may be using.
- Problematic Thinking Styles are a group of thinking patterns that people often have in their reactions to everyday events, but which are often unhelpful and unnecessary, and contribute to negative feelings.
- Includes: All or None Thinking; Overgeneralizing; Must, Should, Never; Catastrophizing; Emotional Reasoning, Overestimation of Risk, and Self-blame.

5 Steps of Cognitive Restructuring

1. Describe the upsetting situation
2. Identify strongest emotion
3. Identify strongest thought
4. Challenge your thoughts
5. Make a decision: Either change the thought, develop an action plan, or both.

CR: Katrina/Superdome

1. Situation: Seeing a teenage girl sexually assaulted at the superdome
2. Feeling: Guilt/Shame
3. Thought: It's my fault the girl was raped.

CR: Example continued

4. Challenge the thought:

- "Evidence" for the thought: 1) I saw it happen, 2) I was the only one there, 3) I didn't do anything. (*note – does not have to be "solid" evidence at this point)
- Evidence against the thought: 1) I yelled out "stop", 2) there were 3 men, 3) they had a knife, 4) I asked a police officer for help

CR: Example continued

5. Make a Decision:

- Evidence does NOT support the thought.
  - More balanced thought: “I did everything I could do in a horrible situation.”
  - Help the client work on bringing this alternative thought to mind to challenge the more automatic, guilt-inducing thought