Integrating Biofeedback with Psychotherapy to Treat Combat PTSD

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Disclaimer

Materials that are included in this course may include interventions and modalities that are beyond the authorized practice of mental health professionals. As a licensed professional, you are responsible for reviewing the scope of practice, including activities that are defined in law as beyond the boundaries of practice in accordance with and in compliance with your professions standards. Information and opinions expressed are not intended/should not be taken as representing the policies and views of the US Government. The presenter has no affiliation with any biofeedback software or hardware products discussed here.
Behavioral Objectives

• List problems associated with combat and military PTSD
• Identify core processes in PTSD
• List biofeedback modalities that can be integrated with therapy
Behavioral Objectives continued

• Discuss advantages biofeedback integration
• Describe how biofeedback can help with emotions
Agenda

• Combat PTSD/Stressful military experiences
• Core processes
• Biofeedback General Uses
• Biofeedback: Mastery & Behavioral Experiment
• Wrap up
Focus

To address **four core processes**
context of interpersonal safety
encouraging creativity
on part of practitioner
using pre-existing skills
Combat PTSD

DSM 5:
PTSD is exposed/witness stressor, there is an intrusion of some type (reexperiencing), effortful avoidance, alterations in cognition and mood, alterations in arousal and reactivity, duration of symptoms > 1 month
- Dissociation can be specified
- Delayed expression
Combat PTSD

What is it?

- Type of PTSD experienced by those who have been in combat
  - Ranges from live fire to support workers in war zone area
  - Military operations other than war
Combat PTSD

Don’t forget….

- Military stressful experiences
  - MST
  - Traumatic training experiences
  - Vicarious
Combat PTSD..one of many
Combat PTSD

- Pretrauma and Posttrauma
  - Personality, genetics, parental care, past history of trauma, psychological problems, life styles, beliefs, expectations, biological process, endocrine, brain… many….
Combat PTSD

Job expectations

✓ Kill others
✓ Destroy things
✓ Take territory
✓ Destroy enemy’s ability
✓ Destroy enemy’s will to fight
✓ Protect friendlies
✓ Follow orders without question
Combat PTSD

Specific War Characteristics

✓ WWII
✓ Korean
✓ Vietnam
✓ Desert Shield/storm
✓ Global War on Terrorism
Combat PTSD

Deployment
- Length of deployment
- Recovery time…
  12 months sufficient?
- Symptoms rewarded as occupational hazard
- Cumulative burden
- Combat specialization
- Stressors adapting to the deployment zone
Combat PTSD

Exposure

✓ Threat of life
✓ Discharging weapon
✓ Loss
✓ Seeing carnage and loss of life
✓ Moral injury: acts of omission and commission
✓ Betrayal of service and role expectations
Combat PTSD

- Due to multiple chronic exposures, more difficulties in:
  - Affect dysregulation
  - Negative self concept
  - Interpersonal disturbance
Combat PTSD

Meanwhile at home….

- Sense of powerlessness/helplessness overseas
- How the news is delivered
- Marriage / divorces / legal
- Housing / eviction
Combat PTSD

How might combat PTSD vs. other PTSD be different?

- Compulsive checking
- Exaggerated self-reliance/control
- Hypervigilance
- Badge of honor - society
Combat PTSD

Cultural mores of Veterans

- Compulsive Self-reliance → Asking help is weakness
- Deservingness distortion → I don’t deserve to get better
- Symptoms may feel right – egosystonic
- Mental health stigma
Combat PTSD

- Veterans have higher frequency of PTSD than civilians
- Controversy: standard trauma focused therapies don’t benefit all
Combat PTSD

- What is improvement?
- When there are improvements, are they clinically significant?
- Too difficult
- Temporary results?
PTSD Resources

• APA Clinical Practice Guidelines
  http://www.apa.org/ptsd-guideline

• VA PTSD
  http://www.ptsd.va.gov/professional/index.asp

• VA PTSD Consultation Program
  Free PTSD consultation for providers working with Veterans.
  866-948-7880 ptsdconsult@va.gov

• Clinicians Trauma Update
  https://www.ptsd.va.gov/professional/publications/ctu-online.asp
Core Processes in PTSD

- Intolerance of uncertainty
- Experiential avoidance
- Emotional dysregulation
- Metacognitive distortions/Thought control
Core Processes in PTSD

• Hypervigilance, safety behaviors, related to inaction
• Military training reinforces exit plans, negative attributions of intent, anticipating worst outcomes
• Defensiveness, threat becomes physiological default
Core Processes in PTSD

- Escaping
  - Internal sensations (thoughts, memories, feelings, pain)
  - External environments (people, situations, triggers)
- The struggle to control
- Lose contact with positive experiences – behavioral repertoire
- Values
Core Processes in PTSD

• Inability to appropriately manage emotional response to triggers

• Difficulty tolerating intense emotions

• Cognitive appraisal
  – Unbearable, take over, fear, coping worse than others, shame, fear, must relieve, absorbed
Core Processes in PTSD

• White bear phenomenon

"Try to pose for yourself this task: not to think of a polar bear, and you will see that the cursed thing will come to mind every minute."

— Fyodor Dostoevsky
Core Processes in PTSD

- Thought suppression studies have shown that people who suppress thoughts intentionally are more likely to experience.
- Classic – ‘don’t think of a pink elephant’
Biofeedback General Uses

- Khazan, 2013
- Foster Awareness
- Facilitate Change
- Generalize outside world

Interpersonally safe environment
Biofeedback
General Uses

• Psychophysiological Profile
• Resonance Frequency Assessment
• Respiration training / skin conductance / temperature / HRV/ EMG
• CBT/ACT therapies
• Mindfulness
Biofeedback: Mastery & B.E.

Biofeedback has a good track record in mastery of skills

– Biofeedback’s ability to alter nervous system response to distress
– Rapidly aid in recovery; homeostasis
Biofeedback: Mastery & B.E.

Poor HRV  <40% Coherent between Breathing & Heart Rate

Emwave
Biofeedback: Mastery & B.E.

Good HRV  75% Coherent between Breathing & Heart Rate
Biofeedback: Mastery & B.E.

• Behavioral experiments in CBT are effective, powerful ways to bring about change

• Using as a **behavioral experiment in** the session to target beliefs related to core processes

• Then experiments in real world
Biofeedback: Mastery & B.E.

- Respiration
  - Rate, rhythm, and quality
- HRV
  - Pyramids
- Skin Conductance
  - Puzzles and happy/sad face
- Attentional exercises
  - Open focus/space metaphor

SKY IS LIMIT
Intolerance of Uncertainty
Biofeedback: Mastery & B.E.

• “I can’t tolerate uncertainty.”
• “I can’t predict what will happen if I’m not guarded or vigilant enough.”

• Need for predictability and low threshold for uncertain arousal
Biofeedback: Mastery & B.E.

- BF lowers defensiveness and guardedness – the experience of low arousal is data

PARADOXICAL ANXIETY = FRIEND
Biofeedback: Mastery & B.E.

- Respiration rate training can be introduced to embrace ‘uncertainty’ of internal sensations
- 14 bpm vs. 12 vs. 10 vs. 8 vs. 6 ..

SESSION = TESTING GROUND
Biofeedback: Mastery & B.E.
Biofeedback: Mastery & B.E.
Biofeedback: Mastery & B.E.

OUTSIDE SESSION:

• Whenever you feel uncertain (i.e., locks, looking for exit strategies, planning get aways, etc.), refrain from safety strategies and accept uncertainty.

• You can use your breathing as a way to ground you and remind you to stay calm.

CHALLENGE = ACCEPT UNCERTAINTY
Experiential Avoidance
Biofeedback: Mastery & B.E.

- “I don’t want to feel xaaa.”
- “I don’t want to think about yyyyy.”

Hayes – Acceptance Commitment Therapy

Focusing on the relationship with internal experiences, not the reduction
Biofeedback: Mastery & B.E.

“I have good news and bad news. The bad news is you may never be able to get rid of your __________. The good news is you can learn to live with them better.”
Biofeedback: Mastery & B.E.

• “I have to work hard to **avoid** upsetting feelings.”

• “I can’t **do** what I need if I feel overwhelmed and anxious.”

• “I am quick to leave situations when I feel **uneasy**.”
Biofeedback: Mastery & B.E.

Experiments:

• Allow emotional reactivity
• Accept and give up struggle for control
• In this phase, not explicitly: teaching relaxation, aborting anxiety, or cultivating low arousal
Biofeedback: Mastery & B.E.
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Biofeedback: Mastery & B.E.
Emotional Dysregulation
Biofeedback: Mastery & B.E.

• Difficulties in:
  – Awareness of emotions
  – Acceptance of emotions
  – Regulating emotions and behaviors
  – Clarity of emotions
Biofeedback: Mastery & B.E.

- Education on emotions
- David Barlow’s Unified Protocol
  - What is the purpose of
    - Anger?
    - Sadness?
    - Anxiety?
    - Fear?
Biofeedback: Mastery & B.E.

- In session exposure
- Sitting with emotions and notice the pull
- SCR output: conversation about emotional awareness
- Interpersonally safe environment
Biofeedback: Mastery & B.E.
Biofeedback: Mastery & B.E.
Biofeedback: Mastery & B.E.

That memory.
Thought Control/Metacognition
Biofeedback: Mastery & B.E.

- Wells Metacognitive therapy
- **Process** of thinking rather than **content**
- Disadvantages of overthinking
- Advantages of worry / rumination
- Flexibility
Biofeedback: Mastery & B.E.

- Trauma thoughts…
- Has this ever helped you?
- How many more times have you done this?
- How many more times until you find an answer?
  100 / 1,000 / 1,000,000
Biofeedback: Mastery & B.E.

• Present moment: Abandon attempts to analyze
• Heart rate variability and respiration training
• Behavioral experiment: Use breathing in real life/mindfulness/15 min
Biofeedback: Mastery & B.E.

- Fehmi’s Open Focus exercise
- Suspend conceptual elaboration
- Metaphor of space is excellent
- Do you have to replace one thought after another? Do you have to answer the why’s?
Wrap Up

Other applications/ideas

Case issues
Resources and References

Resources and References


