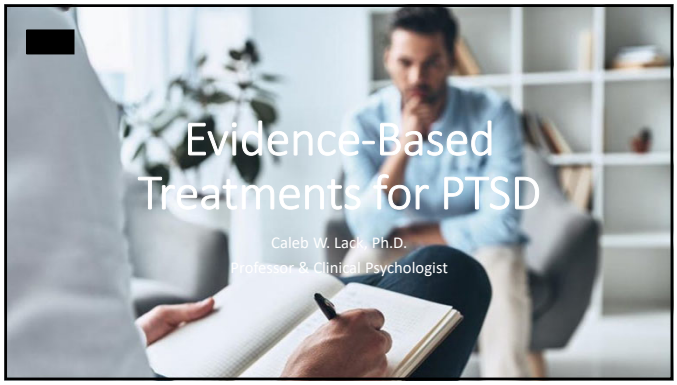
Evidence-Based Treatments for PTSD
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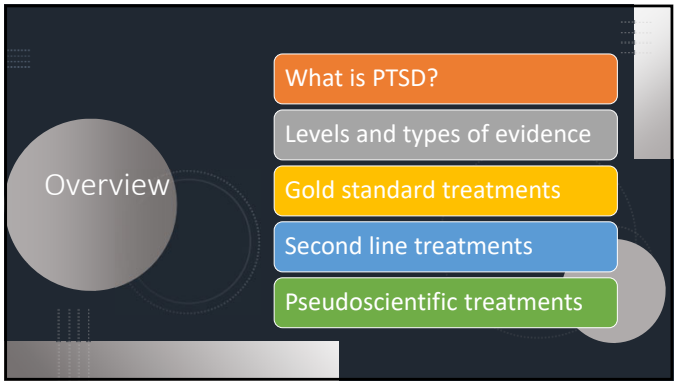
Professor & Clinical Psychologist


Overview
What is PTSD?
Levels and types of evidence
Gold standard treatments
Second line treatments
Pseudoscientific treatments


What is PTSD?

Trauma and Stress Related Disorders

- An inappropriately severe response to a trauma across a long period of time, resulting in functional impairment, can appear in many ways

- Reactive Attachment Disorder
- Disinhibited Social Engagement Disorder
- Posttraumatic Stress Disorder
- Acute Stress Disorder
- Adjustment Disorders

Major changes from DSM-IV to -5

- Posttraumatic Stress Disorder
  - More specific about how event was experienced
  - Subjective reaction eliminated
  - Four major symptom clusters rather than three
  - Developmentally sensitive for kids ages 6 or younger

- Reactive Attachment Disorder now divided into two distinct diagnoses
  - Emotionally withdrawn/inhibited (RAD)
  - Indiscriminately social/disinhibited (Disinhibited Social Engagement Disorder)

Common Features across TSRDs

- Intrusive Memories

- Avoidance

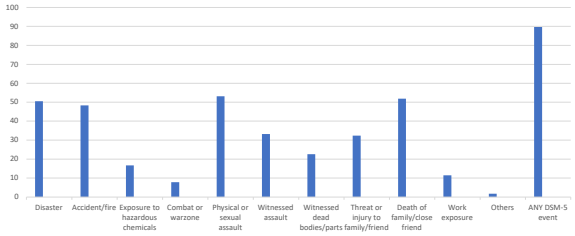
- Negative changes in thinking and mood

- Changes in emotional reactions

PTSD in the DSM-5

- Criterion A: Exposure
- The person was exposed to: death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence, as follows:
  - Direct exposure
  - Witnessing, in person
  - Indirectly, by learning that a close relative or close friend was exposed to trauma. If the event involved actual or threatened death, it must have been violent or accidental.
  - Repeated or extreme indirect exposure to aversive details of the event(s), usually in the course of professional duties (e.g., first responders, collecting body parts; professionals repeatedly exposed to details of child abuse)
    - This does not include indirect non-professional exposure through electronic media, television, movies or pictures

Exposure to DSM-5 Traumatic Events



(Kilpatrick et al., 2013)

PTSD in the DSM-5

- Criterion B: Intrusion symptoms (at least 1)

1. Spontaneous or cued recurrent, involuntary, and intrusive distressing memories of the event(s).
2. Recurrent distressing dreams in which the content and/or affect of the dream is related to the event(s).
3. Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the event(s) were recurring
4. Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the event(s)
5. Marked physiological reactions to reminders of the event(s)

PTSD in the DSM-5

- Criterion C: Persistent avoidance of stimuli associated with the trauma (at least 1)

1. Avoids internal reminders (thoughts, feelings, or physical sensations) that arouse recollections of the traumatic event(s)
2. Avoids external reminders (people, places, conversations, activities, objects, situations) that arouse recollections of the traumatic event(s).

PTSD in the DSM-5

- Criterion D: Negative alterations in cognitions and mood that are associated with the traumatic event (3 or more)

1. Inability to remember an important aspect of the traumatic event(s)
2. Persistent and exaggerated negative expectations about one's self, others, or the
3. Persistent distorted blame of self or others about the cause or consequences of the traumatic event(s)
4. Pervasive negative emotional state
5. Markedly diminished interest or participation in significant activities
6. Feeling of detachment or estrangement from others
7. Persistent inability to experience positive emotions

PTSD in the DSM-5

- Criterion E. Alterations in arousal and reactivity that are associated with the traumatic event (3 or more)

1. Irritable or aggressive behavior
2. Reckless or self-destructive behavior
3. Hypervigilance
4. Exaggerated startle response
5. Problems with concentration
6. Sleep disturbance

PTSD in the DSM-5

F. Persistence of symptoms (in Criteria B, C, D and E) for more than one month

G. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning

H. Not due to medication, substance or illness

DSM-5 PTSD, Preschool Subtype

- Relative to broader diagnosis for those over 6 years, several changes
- Criterions A and B – no change
- Criterions C and D – only need 1 symptom from either one
  - C cluster – no change
  - D cluster – 4 instead of 7 symptoms
    - Does not include amnesia, foreshortened future, persistent blame of self or others
- Criterion E – only 2 symptoms needed
  - Preschool does not include symptom of "reckless behavior"

PTSD Specifiers

- With dissociative symptoms
  - The individual's symptoms meet the criteria for PTSD and the individual experiences persistent or recurrent symptoms of either of the following:

1. Depersonalization
   - Persistent or recurrent experiences of feeling detached from, and as if one were an outside observer of, one's mental processes or body
   - Feeling as though one were in a dream, feeling a sense of unreality of self or body or of time slowly moving
2. Derealization: Persistent or recurrent experiences of unreality of surroundings
   - The world around the individual is experienced as unreal, dreamlike, distant, or disordered

PTSD Specifiers

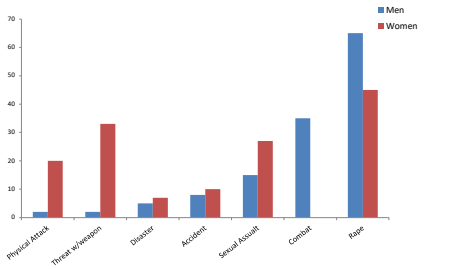
- With delayed expression
  - If the full diagnostic criteria is not met until at least 6 months after the event.

PTSD Prevalence

- Almost 90% of adults have experienced a traumatic event in their lifetime
- More than 25% experience multiple traumas
- Lifetime rate for composite PTSD is 9.4%, current rate 4.2%
- Lifetime rate for same event PTSD is 8.3%, current rate 3.8%

Trauma exposure alone does NOT mean someone will develop PTSD

PTSD as a Function of Type of Trauma

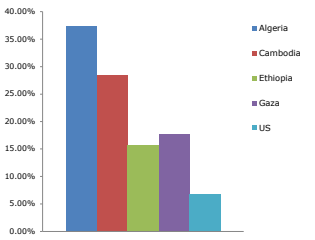


Kessler et al., 1995, 1999

Most Vulnerable Populations

- Those whose experience was especially terrifying or extreme
- Children between 5-10 years of age, especially if separated from parents
- Those without strong social support networks
- Those with a prior history of any type of traumatic experience

PTSD is Higher in Populations with More Trauma



Lifetime PTSD in four post-conflict settings and US

De Jong et al., 2001

PTSD Risk Factors

- Pretraumatic event:
  - Female gender
  - Some genetic factors (*LGLAS13* variants)
  - Childhood trauma
  - Previous psychiatric problems
  - Lower level of education
  - Lower socioeconomic status
  - Minority race

PTSD Risk Factors

- Peritraumatic event:
  - Greater perceived threat or danger, and helplessness increases risk
  - Unpredictability and uncontrollability of traumatic event also increases risk
- Posttraumatic event:
  - Lack of social support, life stress, attributions

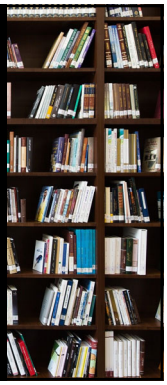
Gender Differences

- Much higher rates in females in civilian populations
- Equal rates seen in military populations, although some controversy over this

Impact of PTSD

- Elevated risk of mood, other anxiety, and substance abuse disorders
- 6x greater chance of suicide that other mental disorders
- Greater functional impairment across domains
- Reduced quality of life
- Elevated risk of poor physical health (heart disease, Type II diabetes, GI)

How do we know what works for PTSD?



Shifting Tides

- Huge push today for mental health practitioners to utilize evidence-based practice (EBP)
- EBP is "the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients."
- Combination of being culturally aware, forging good clinical relationships, and using evidence-based treatments (EBT) based on sound case formulations

Sackett et al., 1996

Importance of Research

- Healthcare providers who use EBT rely heavily on valid and reliable research studies
- Such research is critical because of
  - how easily bias can creep into our everyday decision making
  - how influenced we are by powerful social forces, such as advertising
  - the strength of the placebo effect
  - Regression to the mean for conditions

"Does this treatment work?"

- Instead of that, we must ask both:

1. "Does this treatment work better than a placebo?"
2. "Would this condition naturally improve over time, even with no intervention?"

- Only when something is better than a placebo and shows more improvement than regression to the mean does it "work"

The Blind Researching the Blind

- The best way to conduct research on treatment outcomes is through the use of randomized, placebo-controlled, double-blind procedures (RPCDB)
- These types of high quality clinical trials (RCTs) are what need to be relied on, in order to determine if something is an EBT
- We can then start pooling the data from RCTs to perform larger scale meta-analyses

RPCDB in Action

1. Divide the entire group of people in the study randomly into the treatment and control arms
2. Compare the treatment to a *matched* type of placebo, rather than nothing
3. Participants should not know what treatment arm they are in (being blinded)
4. The researchers examining outcomes should also not know what arm a participant is (being double-blinded)

The Gold Standard

- This type of trial is critical, as it can control for bias, placebos, and regression to the mean
- Studies that don't meet these criteria can show treatments to work, when they actually don't, and people instead get better from a) time or b) just being in *any* type of treatment

Treatments for PTSD

- Gold-standard
  - Highest level of evidence to support use
- Second-line
  - Less or mixed evidence
- Pseudoscientific
  - Evidence to support *not* using them, or a lack of scientific validity

Non-Static Categories

- As in all science, our understanding of health treatments is constantly evolving
- This means that treatments can move from "mainstream" to "alternative" *and* vice versa

Clinical Practice Guidelines

- Large scale reviews were conducted by the American Psychological Association and the Veterans Health Administration and published in 2017
- Slightly different methods were used
  - Both used independent systematic reviews and expert reviews
  - Both looked for published RCTs, but for different time frames
    - APA – 2012 to 2016
    - VA/DoD – 2009 to 2016

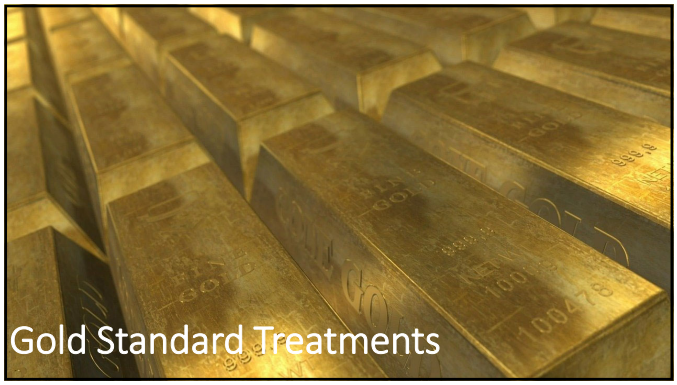
Clinical Practice Guidelines

- Due to different criteria, produced slightly different but majorly overlapping lists of strongly recommended and recommended therapies
- Overall, found the use of trauma-focused, cognitive-behavioral interventions to treat PTSD should be first line interventions

Clinical Practice Guidelines

APA
- Strongly recommend:
  - CBT, CPT, PE, CT
- Recommended:
  - EMDR, BEP, WET

VA/DoD
- Strongly recommend:
  - CBT, CPT, PE, EMDR, BEP, WET
- Recommended:
  - SIT, PCT, IPT



CBTs for PTSD

- All the shared "strongly recommended" treatments between the guidelines are various forms of cognitive-behavioral therapy
- CBT (trauma focused and non-focused)
- Cognitive processing therapy
- Prolonged Exposure therapy

CBTs for PTSD

- The various forms of CBT are much more effective than medications in reducing PTSD symptoms
- Medication is more readily available and can be useful for treating comorbid problems *or* lowering symptoms enough to be able to engage in doing CBT
  - SSRIs are most well studied, outperform placebos
  - Venlafaxine (Effexor), a SNRI, slightly outperforms SSRIs

CBTs for PTSD

- General shared components are
  - Psycho-education
  - Anxiety management
  - Exposure to feared memories/situations
  - Cognitive restructuring
- Enormous amount of literature showing that exposures are the key aspect and driver of change

Prolonged Exposure (PE)

- Based on emotional processing theory (Foa & Kozak)
  - Traumatic events are not processed emotionally at the time of the event
  - Causes dysfunctional fear structures that become problematic
- To alter these fear structures, you need to
  - Activate them
  - Incorporate new, incompatible information into them
- This is done via repeated exposure with response prevention

Prolonged Exposure (PE)

1. Psycho-education: Patient learns about trauma and PTSD
2. Breathing skills: Learns to manage anxiety
3. In vivo exposure: Confronts feared stimuli in real life
4. Imaginal exposure: Involves mental exposure to trauma by repeated telling of memories

Prolonged Exposure (PE)

- Usually takes 8-15 sessions
- Large body of basic and applied research dating back decades
- Meta-analyses of RCTs find PE patients are better than 86% of control condition patients
- Depending on study, 41-95% are non-diagnosable for PTSD by end of treatment

Cognitive Processing Therapy (CPT)

- Draws on emotional processing theory as well as social cognitive theory
  - Assumes survivors attempt to make sense of what happened, which leads to distorted cognitions
- Trauma survivors often assimilate, accommodate, or over-accommodate
- CPT shifts beliefs toward accomodation

Cognitive Processing Therapy (CPT)

1. Education about PTSD, thoughts and emotions
2. Processing trauma (with or without account)
3. Challenging thoughts
4. Cognitive restructuring

Cognitive Processing Therapy (CPT)

- Treatment manual covers 12 sessions, can be done individually or in a group
- Roughly two decades worth of solid research support
  - Meta-analyses show reductions similar to PE
  - Maintains results at 5 and 10 year follow ups
- Depending on study, 30-90% are non-diagnosable for PTSD by end of treatment

"CBT" for PTSD

- Top tier recommendation from both APA and VA/DoD
- Refers to a more modular, slightly less structured format
  - Can be trauma or non-trauma focused
- Still shares same components, with ERP and cognitive restructuring showing best impact on symptoms

TF-CBT

- Developed specifically for children and adolescents, as a downward extension of PE
- Strongest research evidence of any treatment model for traumatized children, both RCTs and published meta-analysis
- Can go from 12-25 sessions, usually 60-90 minutes

TF-CBT Components

1. Psychoeducation about child trauma and trauma reminders
2. Parenting component including parenting skills
3. Relaxation skills individualized to youth and parent
4. Affective modulation skills tailored to youth, family and culture
5. Cognitive coping: connecting thoughts, feelings and behaviors
6. Trauma narrative and processing
7. In vivo mastery of trauma reminders
8. Conjoint youth-parent sessions
9. Enhancing safety and future developmental trajectory
10. Traumatic grief components

Why use the CBTs?

- The guidelines and strong research evidence suggest these should be the first line of treatment for PTSD whenever possible, considering patient preferences and values and clinician expertise
- No support for adverse side effects
- Research shows patients prefer them to both medications *and* other psychotherapy treatments

Second-line Treatments

- The following have either less evidence to support them, mixed evidence, or issues with their underlying assumptions

- Written exposure therapy (WET)
- Brief eclectic psychotherapy (BEP)
- Eye movement desensitization therapy (EMDR)
- Stress inoculation training (SIT)
- Interpersonal therapy (IPT)

Written Exposure Treatment

- Developed to address high dropout rates and long treatment times of other forms of CBT

- Large amount of research on it has been published *since* the guidelines came out (2018-2021)
  - Comparable results to 12 sessions of CPT in head-to-head trial
  - 60 week follow up showed 68% no longer met PTSD criteria
  - Under 10% dropout rate, compared to 25-40% for other CBTs
  - Used cross-culturally and with military population with equal results

Written Exposure Treatment

1. Psychoeducation about trauma and avoidance
2. Five sessions of specific writing exposures
   - Can do more if needed

- When re-evaluated, will definitely move to "strongly recommended" on both APA and VA/DoD list

Brief Eclectic Psychotherapy

- Combines CBT elements with a PD approach

1. Psychoeducation
2. Exposure
3. Relaxation
4. Cognitive processing
5. Support building

- Research is on 16 sessions, usually once weekly
- Change is almost certainly due to ERP and CT aspects

EMDR

- EMDR therapy uses a structured eight-phase approach that includes:
  - Phase 1: History-taking
  - Phase 2: Preparing the client
  - Phase 3: Assessing the target memory
  - Phases 4-7: Processing the memory to adaptive resolution
  - Phase 8: Evaluating treatment results
- Differs from other trauma-focused treatments in that it does not include extended exposure to the distressing memory, detailed descriptions of the trauma, challenging of dysfunctional beliefs or homework assignments

EMDR

- While widely used, it's controversial due to research showing the bilateral stimulations are not actively contributing to change
- Dismantling studies show EMDR *without* BLS is as effective as EMDR with BLS
- "Despite the demonstrable efficacy of EMDR, these studies call into question EMDR's theoretical rationale."

(Work Group on ASD and PTSD, 2004)

EMDR

- EMDR appears to be a 'purple hat therapy' – the imaginal exposures are the actual drivers of change
- Same goes for the offshoot of Accelerated Resolution Therapy (ART)

Stress Inoculation Training

- Another form of CBT, focuses on raising awareness of triggers and teaching coping skills
- Deep breathing
- Muscle relaxation
- Cognitive restructuring
- Imaginal exposure/problem solving

Interpersonal Therapy

- The only second-line treatment with *no* focused trauma exposure
- Defines an interpersonal crisis arising from trauma and helps resolve it via fairly traditional IPT
  - Grief
  - Role dispute
  - Role transition
- Usually 14+ weekly sessions

Pseudoscientific Therapies

- These are usually treatments that have been found to be some combination of:
  - Ineffective
  - Actively harmful
  - Shaky theoretical foundations or no support for their core assumptions

Pseudoscientific PTSD Therapies

- Critical incident stress management (CISM)
- Emotional freedom technique (EFT) and thought field therapy (TFT)
- Rapid resolution therapy (RRT)
- Somatic experiencing therapy (SET)

Critical Incident Stress Management

- CISM ("psychological debriefing") was developed in early 1980s to prevent development of PTSD symptoms
- Based on two assumptions
  - Trauma exposure alone is enough to cause a person to experience long-term psychological difficulties
  - Early interventions can prevent such problems from developing
- *Neither* of these are supported by the research

Critical Incident Stress Management

- All evidence supporting CISM is anecdotal and most is from the developer of it
- World Health Organization and British National Health Service implemented policies against its use
- "Although [CISM] is widely used throughout the world to prevent PTSD, there is no convincing evidence that it does so."

(McNally et al., 2003)

CISM is *not* PFA

- Psychological First Aid (PFA) was developed by the National Center for PTSD and National Child Traumatic Stress Network

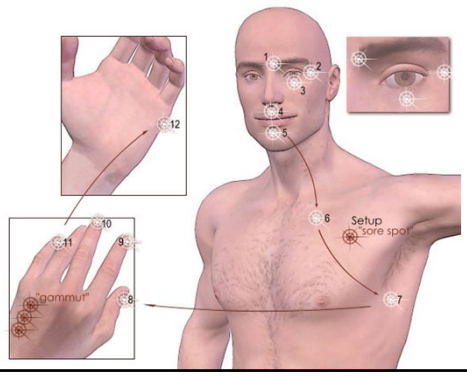
- Contact and Engagement
- Safety and Comfort
- Stabilization (if needed)
- Information Gathering on Current Needs and Concerns
- Practical Assistance
- Connection with Social Supports
- Information on Coping
- Linkage with Collaborative Services

"Tapping" Therapies

- Thought Field Therapy (TFT) is based on the idea of an invisible energy field that surrounds the human body

- One can these repeatedly tap on places in the body where these fields intersect, releasing negative emotions

- Similar to acupuncture's ideas, but for PTSD



Thought Field Therapy

"…often works when nothing else will... It has been used for weight loss, stop smoking [sic], phobias, trauma relief, love pain, and much, much more."

"When applied to problems TFT addresses their fundamental causes, providing information in the form of a healing code, balancing the body's energy system and allowing you to eliminate most negative emotions within minutes and promote the body's own healing ability."

(rogercallahan.com, n.d.)

"Tapping" Therapies

- No support for such "energy" even existing
- No sound outcome research, and no theoretical reason to think it might work
- Emotional Freedom Techniques (EFT) are very similar, with equally little evidence

Rapid Resolution Therapy

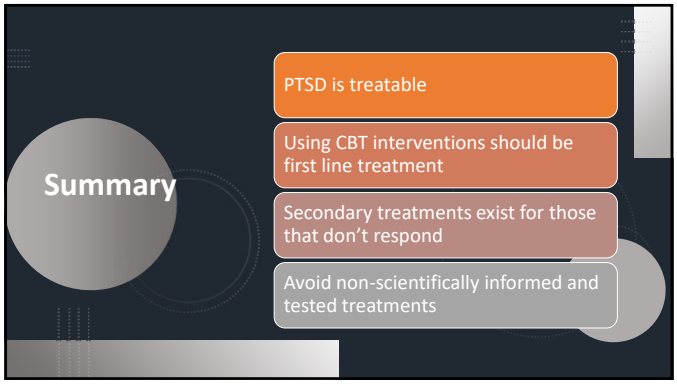
- Combines hypnosis, guided imagery, and use of specific stories to supposedly address the "emotional brain" and limbic system
- Usually 2-6 sessions (hence the "rapid" name)
- No controlled research, despite being 30 years old as a modality

Somatic Experiencing Therapy

- "Neurobiology-based somatic approach to working with trauma [which] resides in the nervous system and not in the event itself."
- Based on ideas by Levine and Van Der Kolk, posits that other animals don't experience PTSD after trauma, but humans somehow override the natural impulse to "shake out all the stored fear and energy" which will leave you in a "frozen" state
- Little evidence supporting underlying biological ideas, no evidence that such "energy" exists, ignores how memory works, and lack of treatment outcome studies

"Energy" Therapies

- Critical thinking principles go on high alert with TFT/EFT/RRT/SET
  - Inability to falsify claims
  - Reliance on anecdotal evidence
  - Claims of miraculous success
- These are all hallmarks of pseudoscience



Questions?

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www.caleblack.com

Available On Demand Trainings

- PE online training - http://pe.musc.edu/introduction
- CPT online training - https://cpt2.musc.edu/
- TF-CBT online training – https://tfcbt2.musc.edu/
- WET online training - https://ecpd.mclms.net/en/package/7966/view

Key Resources

- Watkins, L. E., Sprang, K. R., & Rothbaum, B. O. (2018). Treating PTSD: A Review of Evidence-Based Psychotherapy Interventions. *Frontiers in behavioral neuroscience*, *12*, 258. (link)
- APA's Clinical Practice Guideline for the Treatment of Posttraumatic Stress Disorder (PTSD) in Adults (link)
- VA/DoD Clinical Practice Guidelines (link)

Key Resources

- Lynn, S. J., Evans, J., Laurence, J.-R., & Lilie
- nfeld, S. O. (2015). What Do People Believe about Memory? Implications for the Science and Pseudoscience of Clinical Practice. *The Canadian Journal of Psychiatry, 60*(12), 541–547. (link)

- Lilienfeld, S.O., Lynn, S.J., & Lohr, J.M. (2014). Science and pseudoscience in clinical psychology (2nd edition). Guilford. (link)