



# Charles R. Marmar, MD

## Disclosures



- **Research and Clinical Program Funding (current and last 10 years):** Bank of America Foundation; Brockman Foundation; City of New York; Cohen Veterans Bioscience; Cohen Veterans Network; Home Depot Foundation; McCormick Foundation; National Institute on Alcohol Abuse and Alcoholism (NIAAA); National Institute of Mental Health (NIMH); Northern California Institute for Research and Education; Robin Hood Foundation; Steven & Alexandra Cohen Foundation; Tilray; U.S. Army Medical Research & Acquisition Activity; U.S. Army Telemedicine & Advanced Technology Research Center; and U.S. Department of Defense
- **Consultant:** Served as a PTSD Fellow for the George W. Bush Institute
- **Other Commercial Interest:** Serves on the scientific advisory board and has equity in Receptor Life Sciences

# Learning Objective 1

Examining psychotherapy interventions to military-related PTSD



# First Line Psychotherapies for Military Related PTSD



- PE and CPT widely disseminated in DoD and VA
- Manualized trauma focused therapies
- 12 session monotherapies
- We reviewed RCTs in 2015<sup>1</sup>
  - 4 RCTs of PE and 5 RCTs of CPT
  - Large effect sizes for PTSD symptom reduction ( $d = 0.78-1.10$ )
  - Heterogeneous outcomes
  - High non-response rates
  - Non-trauma focused treatments nearly as effective as PE and CPT

PE = Prolonged exposure therapy; CPT = Cognitive processing therapy; DoD = Department of defense.

1. Steenkamp MM, Litz BT, Hoge CW, Marmar CR *JAMA*. 2015;314(5):489-500.



# First-Line Psychotherapies for Military Related PTSD



- Review of RCTs between 2015 and 2020<sup>1</sup>
- Emphasize combat exposure rather than sexual trauma
- Active comparison groups
- Active duty personnel
- 3 RCTs from strong star consortium
  - 746 Active duty personnel
  - Group CPT vs. Group PCT (present centered therapy)
  - PCT focus on symptom management and problem solving
  - Group CPT vs. individual CPT
  - Massed PE vs. spaced vs individual PE vs. spaced PCT
- 2 DoD RCTs
  - PE + Placebo vs. sertraline vs. PE + sertraline
  - PE vs Transcendental meditation (TM)

1. Steenkamp M, Litz BT, Hoge CW, Marmar C. *JAMA*. 2020;323(7):656-657.

# First Line Psychotherapies for Military Related PTSD



- Results across 5 RCTs between 2015 and 2020
  - PE = CPT = PCT = Sertraline = TM on primary endpoint
  - PE and CPT NOT superior to present centered therapy
  - PE + Placebo = Sertraline = PE + Sertraline
  - TM non-inferior to PE
  - Less dropouts in present centered therapy
  - Massed PE less dropouts than spaced PE
  - Across trials active treatments had moderate to large effect sizes
  - Outcomes heterogeneous
  - High non-response rates
  - 31% recovered/improved across 3 STRONG STAR RCTs
  - Patients got better but rarely got well
  - 60% met criteria for full PTSD at outcome

# First Line Psychotherapies for Military Related PTSD



## Conclusions:

- Treatment resistant population in VA settings
- High non-response, under-response and dropout rates
- Negative RCT for sertraline<sup>1</sup>
- Negative RCT for prazosin<sup>2</sup>

1. Friedman MJ, Marmar CR, et al. *J Clin Psychiatry*. 2007;68(5):711-720.; 2. Raskind MA, et al. *N Engl J Med*. 2018;378(6):507-517

# First Line Psychotherapies for Military Related PTSD

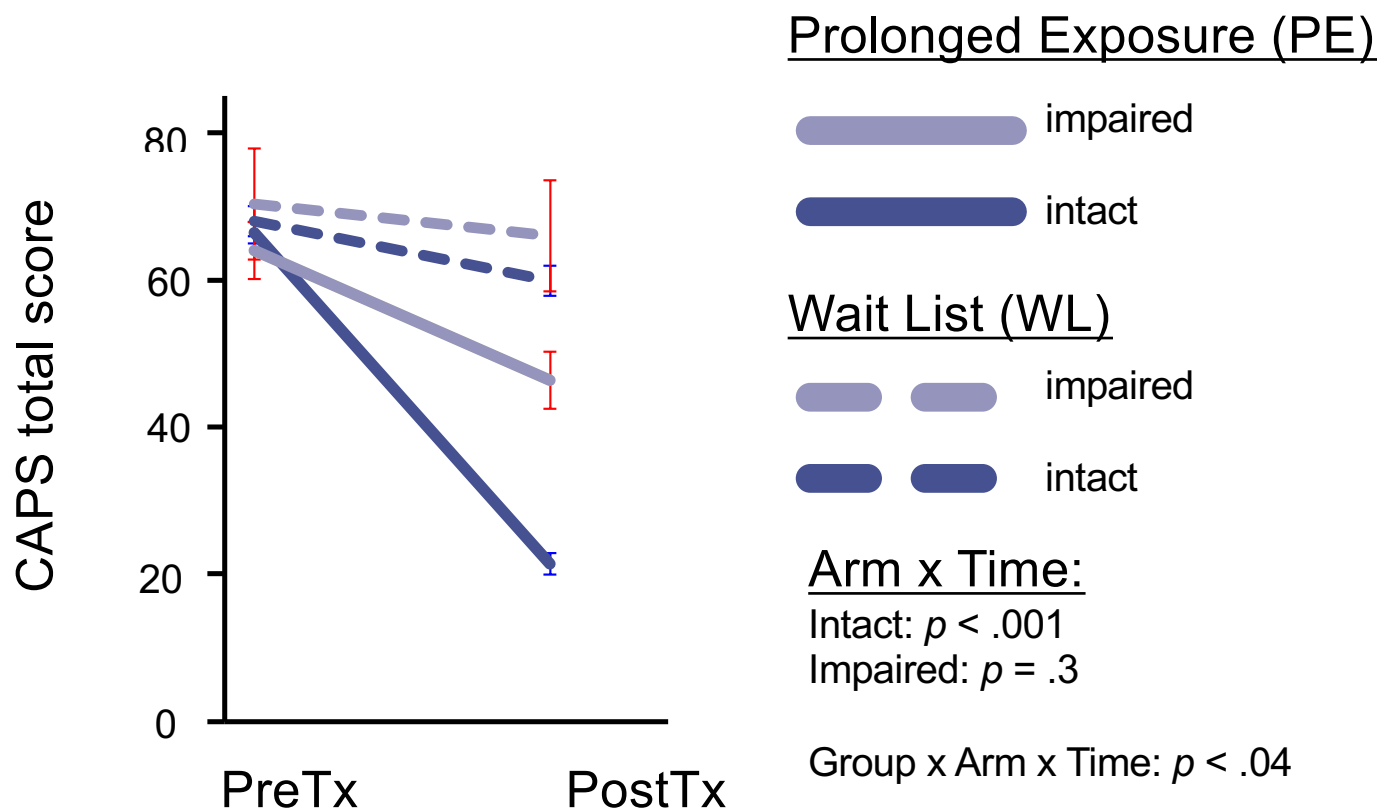


## Conclusions:

- Complex PTSD in primarily male active duty/veterans
- Manualized PE and CPT not effective for one third to one half of veterans and active duty
- Need for precision medicine trials
- Need for studies of TMS, ketamine, neurofeedback and CBD
- Etkin and colleagues-PE not effective for those with abnormal VAN connectivity



# CVC Biomarker Prediction of Outcome



# Questions &

Don't forget to fill out your evaluations to collect your credit.

