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This presentation is part of the Community Rounds Workshop Series

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Disclosures

There is nothing to disclose for this UVM CORA Community Rounds session.

Potential Conflict of Interest (*if applicable*): All Potential Conflicts of Interest have been resolved prior to the start of this program.

All recommendations involving clinical medicine made during this talk were based on evidence that is accepted within the profession of medicine as adequate justification for their indications and contraindications in the care of patients.

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INTERPROFESSIONAL CONTINUING EDUCATION

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Co-occurring Posttraumatic Stress Disorder & Substance Use: Epidemiology, Assessment, & Treatment

Kelly R. Peck, PhD

Assistant Professor at the University of Vermont and Vermont Center on Behavior and Health

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Presentation Overview

- Provide a definition of trauma and posttraumatic stress disorder (PTSD) according to the DSM-V
- Present an overview of PTSD prevalence
- Review helpful assessment tools and strategies
- Review effective treatment approaches for PTSD
- Discuss specific considerations for working with rural populations and individuals with concurrent PTSD and substance use disorder

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Diagnosis of Posttraumatic Stress Disorder (PTSD) DSM-5

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A) Exposure to a Traumatic Event

Definition of trauma

- Being exposed to actual or threat of: (a) death, serious injury, and/or sexual violation
- By either: experiencing the event(s), witnessing it/them as occurring to others, or learning that they occurred to a close relative or close friend; in such cases, the actual or threatened death must have been violent or accidental
- Experiencing repeated or extreme exposure to aversive details of the event(s) (e.g., first responders collecting body parts; police officers repeatedly exposed to details of child abuse); this does not apply to exposure through electronic media, television, movies, or pictures, unless this exposure is work related.

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B) Intrusion Symptoms (at least 1 symptom)

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

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C) Avoidance Symptoms (at least 1 symptom)

Vocal Psyche, 2018

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

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D) Cognitive and Mood Symptoms (at least 2 symptom)

- Inability to remember important aspects of the traumatic event
- Persistent and exaggerated negative expectations about oneself, others, or the world
- Persistent distorted blame of self or others about the event
- Pervasive negative emotions (fear, horror, anger, guilt, shame)
- Diminished interest or participation in activities
- Feeling of detachment or estrangement from others
- Persistent inability to experience positive emotions (e.g., love or happiness)

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E) Arousal and Reactivity Symptoms (at least 2 symptoms)

- Irritable or aggressive behavior
- Reckless or self-destructive behavior
- Hypervigilance
- Exaggerated startle response
- Problems with concentration
- Sleep disturbance (difficulty falling or staying asleep)

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Diagnostic Criteria for PTSD (con't)

F) Duration of the disturbance is more than 1 month

G) The disturbance causes significant distress or impairment in important areas of functioning.

Specify if:

- Delayed onset: if onset of symptoms is at least 6 months after the onset of the traumatic event
- Dissociation/depersonalization present

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Prevalence of Trauma and PTSD

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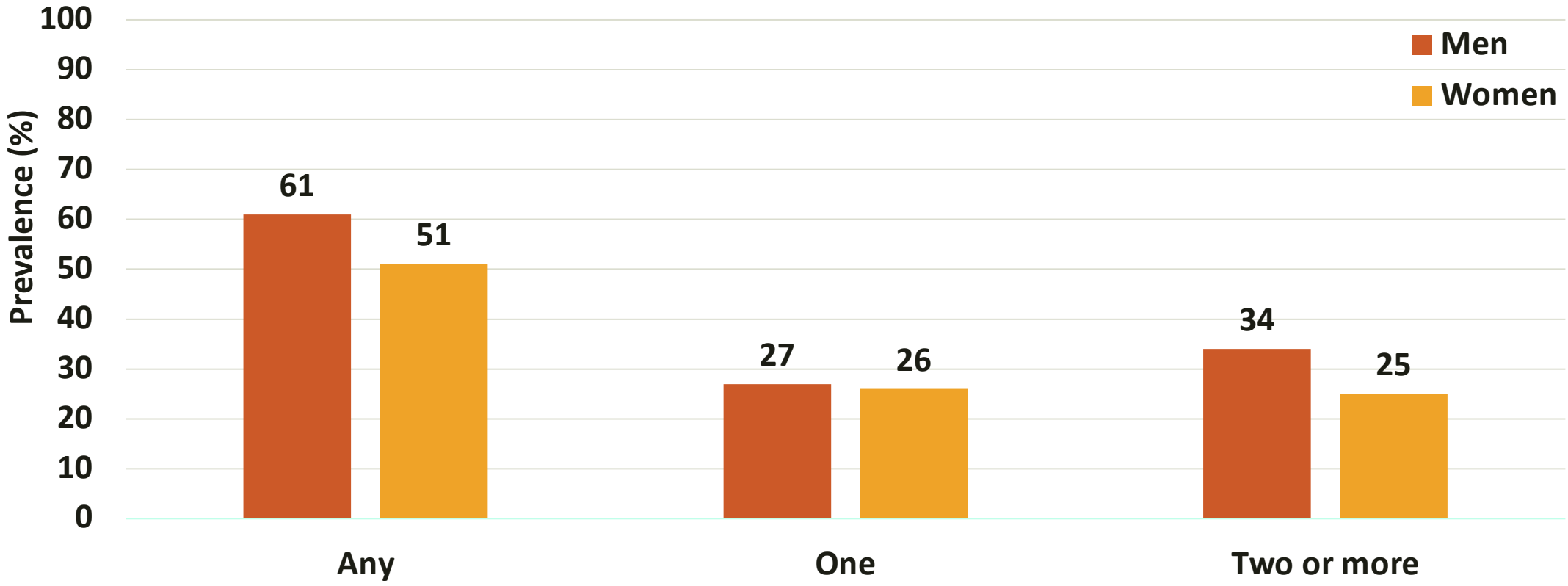
Lifetime Prevalence of Trauma in the USA



Kessler et al., 2000

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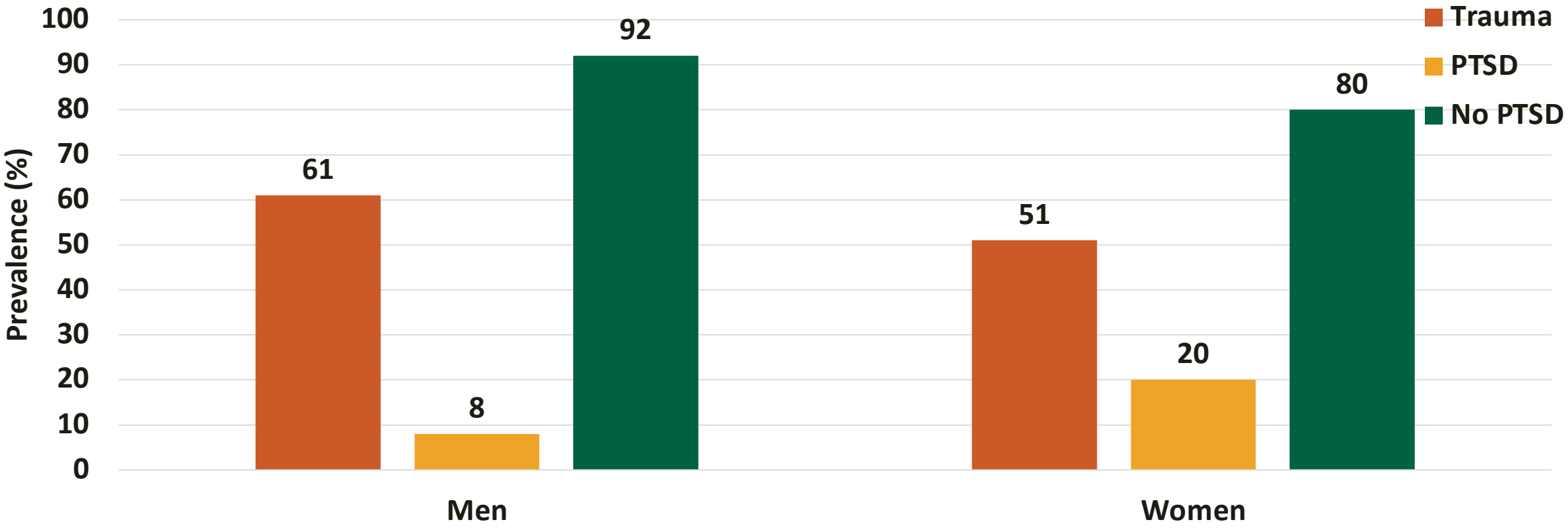
Lifetime Prevalence of Trauma and PTSD in Men and Women in the USA



Kessler et al., 1995

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The Cost and Burden of PTSD

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The Cost and Burden of PTSD

	Adjusted Odds of Disease in PTSD vs. no PTSD
Neurological	2.48*
Vascular	1.88*
Respiratory	1.43*
Gastrointestinal	1.96*
Metabolic/autoimmune	3.32*
Musculoskeletal	2.52*

Sareen et al., 2005

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PTSD and Psychiatric Comorbidities

- PTSD frequently co-occurs with other psychiatric conditions
- Among people with current PTSD as their primary diagnosis:
  - Any current anxiety or mood disorder (92%)
  - Current Major Depressive Disorder (69%)
  - Current panic disorder (23%)
  - Current obsessive compulsive disorder (23%)
  - Lifetime alcohol/drug abuse or dependence (38%)

Brown et al., 2001

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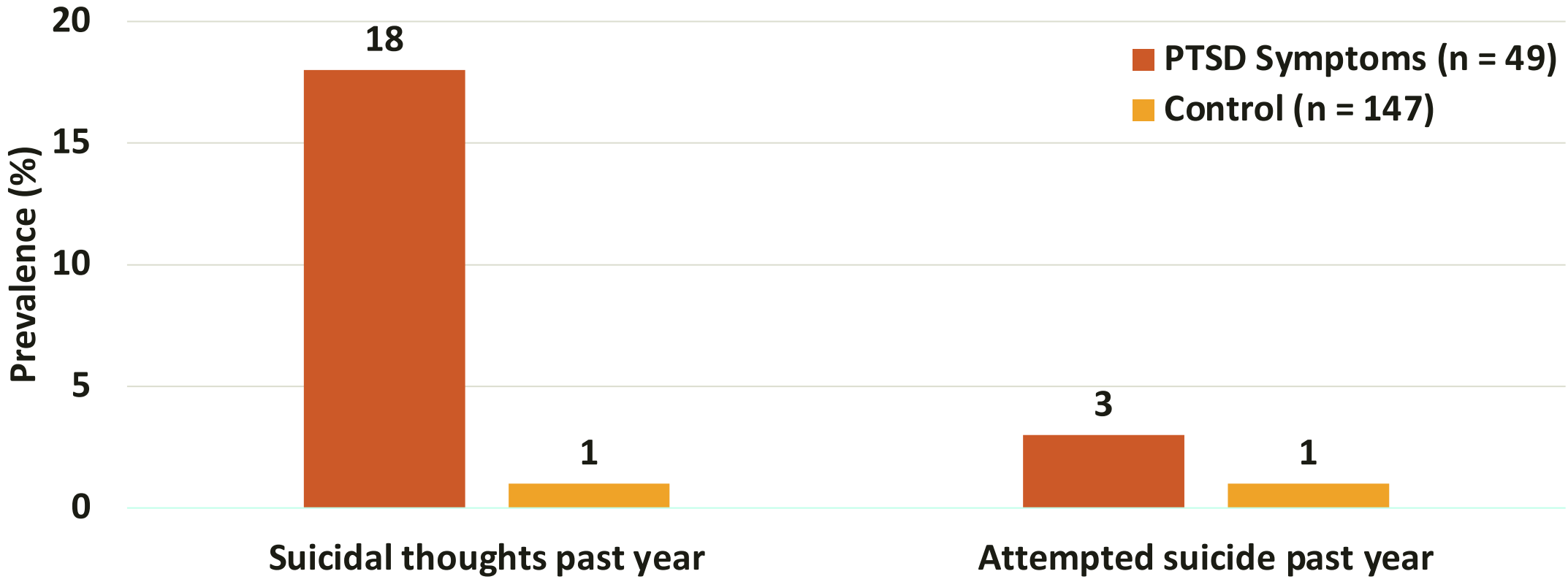
Suicidality in the Past Year



Amaya-Jackson et al., 1999

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Prevalence and Burden of PTSD in Individuals with Substance Use Disorders (SUDs)

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PTSD & SUD

- ~40% of individuals with SUDs also meet criteria for PTSD
  - Blanco et al., 2013; Brown et al., 2001; Petrakis et al., 2011; Pietrzak et al., 2011
- Almost all individuals (~90%) with opioid use disorder (OUD) report lifetime trauma exposure
- One-third of these individuals meet criteria for PTSD
  - Ecker et al., 2017; Mills et al., 2005, 2006; Pierce et al., 2009

Lifetime prevalence of trauma and PTSD in the general population vs. those with OUD

	Trauma Exposure	PTSD
General Population	60.7%	7.8%
OUD	87.8%	33.2%

Kessler et al., 1995; Mills et al., 2006

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PTSD & OUD (Continued)

Table 1. Intake Trauma Screening Question: In the past month have you:	**%**
Experienced or witnessed or had to deal with an extremely traumatic event that included actual or threatened death or serious injury to your or someone else?	61
Tried hard not to think about it or went out of your way to avoid situations that reminded you of a traumatic event?	53
Felt numb or detached from others, activities, or your surroundings?	49
Had nightmares about a traumatic event when you did not want to?	48
Have you re-experienced the awful event in a distressing way (nightmares, intense recollections, flashbacks, or physical reactions) in the past month?	48
Been consistently on guard, watchful, or easily startled?	47

- 94% of Chittenden Clinic patients endorse >1 PTSD symptom
- 61% report experiencing or witnessing a traumatic event within the past month

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Cost and Burden of Co-Occurring PTSD and SUD

- SUD treatment outcomes are also worse for individuals with co-occurring PTSD compared to individuals with SUD alone
  - More intense cravings
  - Greater treatment dropout
  - More frequent and quicker relapse to substance use

Blanco et al., 2013; Brady et al., 2004; Coffey et al., 2002; Ecker et al., 2017; Marx et al., 2009; Peirce et al., 2016; Pietrzak et al., 2009, 2011; Saladin et al., 2003; Schiff et al., 2010; Teeson et al., 2005; Villagomez et al., 1995

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Assessment of Posttraumatic Stress Disorder

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Importance of Assessment

- In order to effectively determine the course of treatment for individuals with concurrent PTSD and SUD, it is important to first conduct a thorough evaluation of trauma and PTSD:
  - Obtain a detailed trauma history, determine index trauma
  - Confirm a diagnosis of PTSD (or presence of significant symptoms)
  - Assess for presence and severity of comorbid psychiatric disorders and SUDs (particularly current illicit substance use)
  - Confirm that PTSD is among the current primary disorders
- This is accomplished with the use of both interview and self-report measures

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Importance of Assessment

Assessment of lifetime trauma exposure

- Life Events Checklist for DSM-5 (LEC-5)

Assessment of PTSD symptoms

- Self-report measures
  - PTSD Checklist for DSM-5 (PCL-5)
  - PTSD Scale Self-Report (PDS-5)
- Interview measure
  - Clinician Administered PTSD Scale for DSM-5 (CAPS-5)
  - PTSD Symptom Scale Interview (PSSI-5)

Other useful assessments

Interview measures

- MINI, ASI-5, & TLFB

Self-report measures

- Beck Depression Inventory (BDI-II)
- Beck Anxiety Inventory (BAI)
- Patient Health Questionnaire (PHQ-9)

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Life Events Checklist for DSM-5 (LEC-5)

- Self-report measure designed to screen for potentially traumatic events in a respondent's lifetime
- Assesses exposure to 16 events known to potentially result in PTSD or distress and includes one additional item assessing any other extraordinarily stressful event not captured in the first 16 items

Link to DSM-5 PDF

Weathers et al., 2013

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PTSD Checklist for DSM-V (PCL-5)

- 20 item self-report measure that assesses the presence and severity of PTSD symptoms
  - 20 symptom ratings rated on a Likert-type scale from 0-4

In the past month, how much were you bothered by:	Not at all	A little bit	Moderately	Quite a bit	Extremely
1. Repeated, disturbing, and unwanted memories of the stressful experience?	0	1	2	3	4

- Multiple versions of the PCL which vary slightly in the instructions and wording of the phrase referring to the index event
- Scores range from 0-80
- Cut-off score for probable diagnosis of PTSD is 31-33

Weathers et al., 2013

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Clinician Administered PTSD Scale for DSM-5 (CAPS-5)

- The CAPS is the gold standard in PTSD assessment.
- The CAPS-5 is a 30-item structured interview that allows clinicians to make a diagnosis and obtain an estimate of the severity of symptoms
- Interviewer should have training in differential diagnosis, a good understanding of PTSD symptoms, and familiarity with the CAPS-5 manual and administration
- Administration requires identification of an index traumatic event to serve as the basis for symptom inquiry. There are three versions of the CAPS-5 corresponding to: past week, past month, and worst month (lifetime)

Link to CAPS-5 Assessment

Weathers et al., 2013

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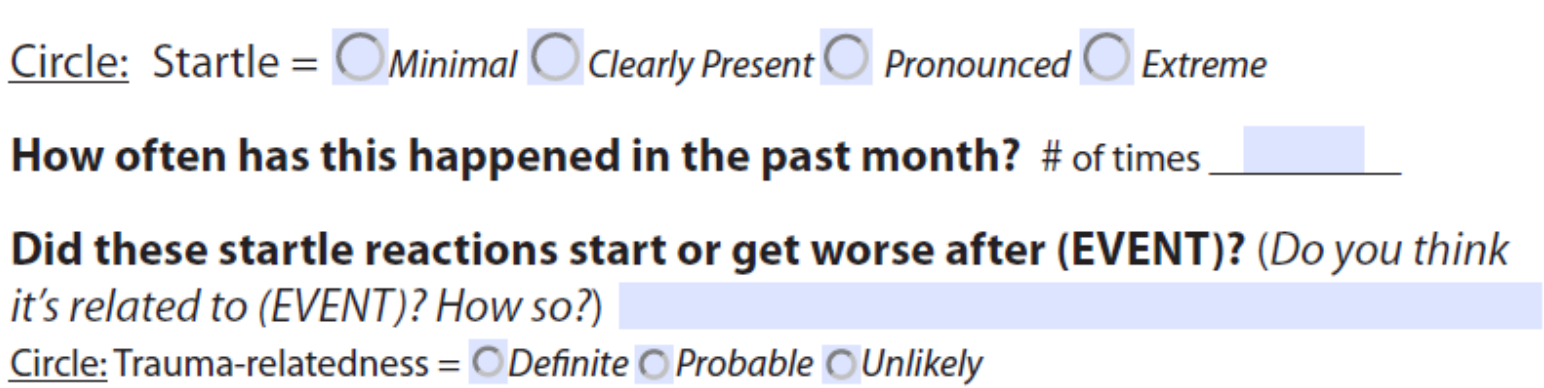
CAPS-5: Administration and Scoring III

- For each symptom, standardized questions and probes are provided to achieve the most reliable and valid results
- The assessor combines information about frequency and intensity of an item into a single severity rating


Circle: Startle = ○ *Minimal* ○ *Clearly Present* ○ *Pronounced* ○ *Extreme*

How often has this happened in the past month? # of times _____

Did these startle reactions start or get worse after (EVENT)? (*Do you think it's related to (EVENT)? How so?*)

Circle: Trauma-relatedness = ○ *Definite* ○ *Probable* ○ *Unlikely*


0 *Absent*

1 *Mild / subthreshold*

2 *Moderate / threshold*

3 *Severe / markedly elevated*

4 *Extreme / incapacitating*

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CAPS-5: Administration and Scoring IV

- CAPS-5 total symptom severity score is calculated by summing severity scores for the 20 DSM-5 PTSD symptoms.
- Scores range from 0-80
- Can also determine whether an individual meets DSM-V diagnostic criteria for PTSD

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Other Useful Assessments

Mini-International Neuropsychiatric Interview (Sheehan, 1998)

- Structured diagnostic interview for most common psychiatric disorders

Addiction Severity Index (McLellan et al., 1985)

- Semi-structured interview that addresses potential problem areas in substance-using patients

Beck Depression Inventory (Beck et al., 1996)

- Self-report measure of attitudes and symptoms of depression

Patient Health Questionnaire (Kroenke et al., 2001)

- Self-report measure based on DSM-IV depression diagnostic criteria

Beck Anxiety Inventory (Beck & Steer, 1993)

- Widely used self-report measure of anxiety symptoms.

Time-Line Followback Interview (Sobell et al., 1988)

- Calendar-based method for assessing past-month substance use.

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Effective Psychotherapy for PTSD

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PTSD Interventions

- Individual counseling
- Support groups
- Psychodynamic psychotherapy (e.g., psychoanalysis)
- Hypnotherapy
- Eye Movement Desensitization Reprocessing (EMDR)
- Short-term cognitive behavioral therapy (CBT)
  - The only type of psychotherapy that has been systematically studied and therefore is evidence based
  - Very effective in 8-15 sessions

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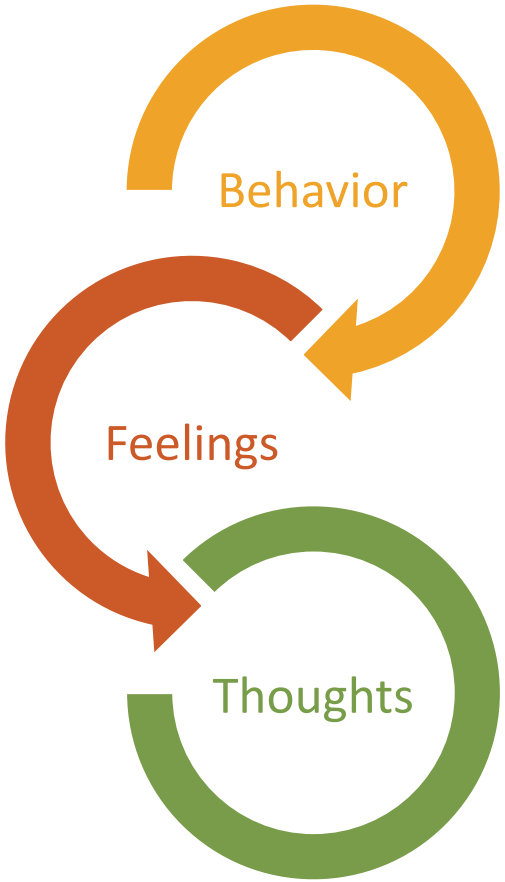
CBT Treatments for PTSD

- Promote safe confrontations (via exposure, discussions) with trauma reminders (memories, situations)
- Aimed at modifying the dysfunctional cognitions underlying the PTSD



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Evidence-Based Treatments for PTSD

Healthline, 2019

- Anxiety Management Procedures
- Cognitive therapy
- Exposure procedures

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Anxiety Management Treatment

- Relaxation training
- Controlled breathing
- Positive self-talk and imagery
- Social skills training
- Distraction techniques (e.g., thought stopping)

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Cognitive Therapy

- Identifying dysfunctional, erroneous thoughts and beliefs (cognitions)
- Challenging these cognitions
- Replacing these cognitions with functional, realistic cognitions
- Cognitive Processing Therapy
  - Cognitive restructuring focusing on:
    - Safety
    - Trust
    - Power
    - Esteem
    - Intimacy
  - Repeated writing of the traumatic experience
  - Treatment consists of 12 weekly sessions

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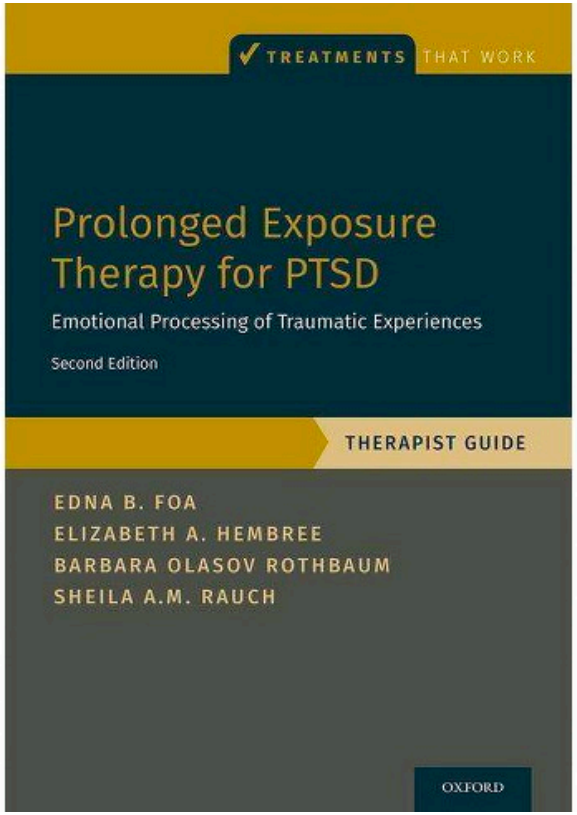
Prolonged Exposure Therapy (PET) for PTSD: Treatment Procedures

- Prolonged, imaginal exposure to the trauma memory (revisiting, recounting, and processing)
- Repeated *in vivo* exposure to safe situations that are avoided because of trauma-related fear
- Treatment consists of an average of 8-15 90-minute sessions



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Empirical Evidence for the Efficacy of Prolonged Exposure Therapy and Other Treatments for PTSD

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Study I with Female Assault Victims

- Treatments:
  - PET
  - Stress Inoculation Training (SIT)
  - SIT+PET
  - Waitlist Controls
- Treatments included 9 sessions conducted over 5 weeks

Foa et al., 1999

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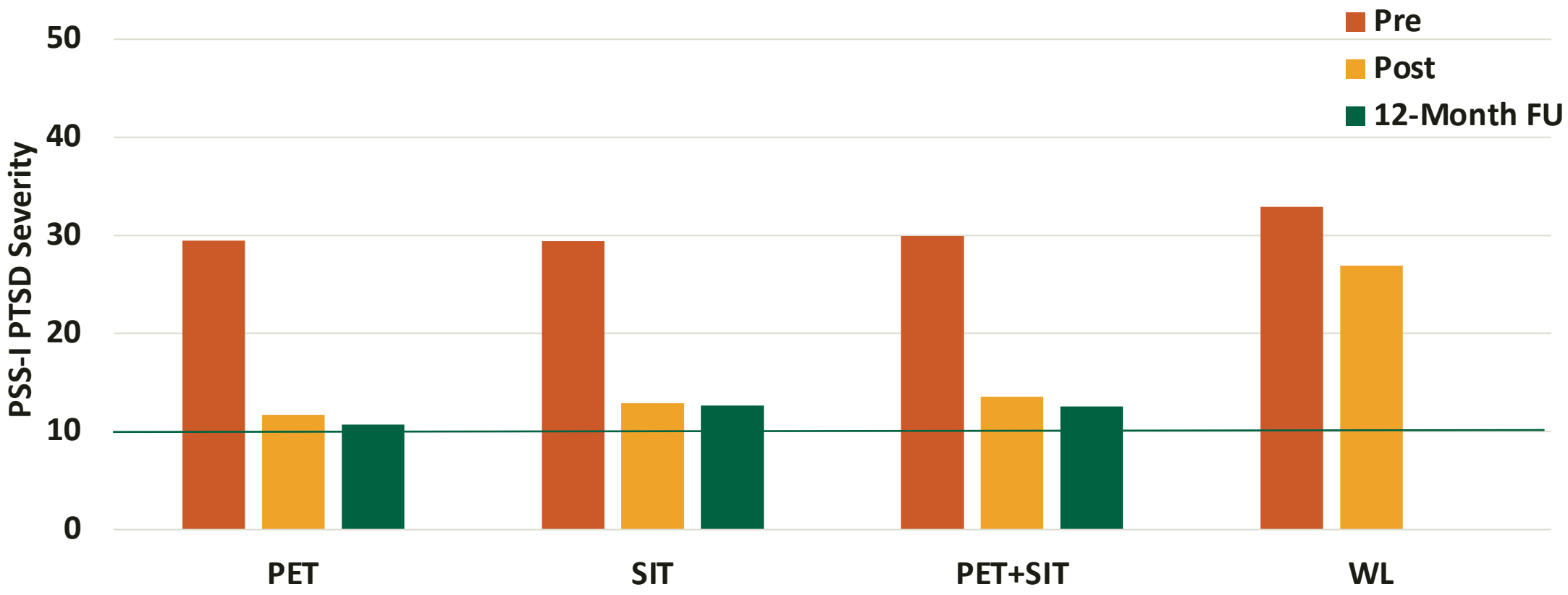
Study I with Female Assault Victims



Foa et al., 1999

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Study II with Female Assault Victims

Treatments:

- PET
- PET + Cognitive Restructuring (PE/CR)
- Waitlist Controls

Treatments included 9 weekly sessions, extended to 12 sessions for partial responders (<70% improvement)

Foa et al., 2005

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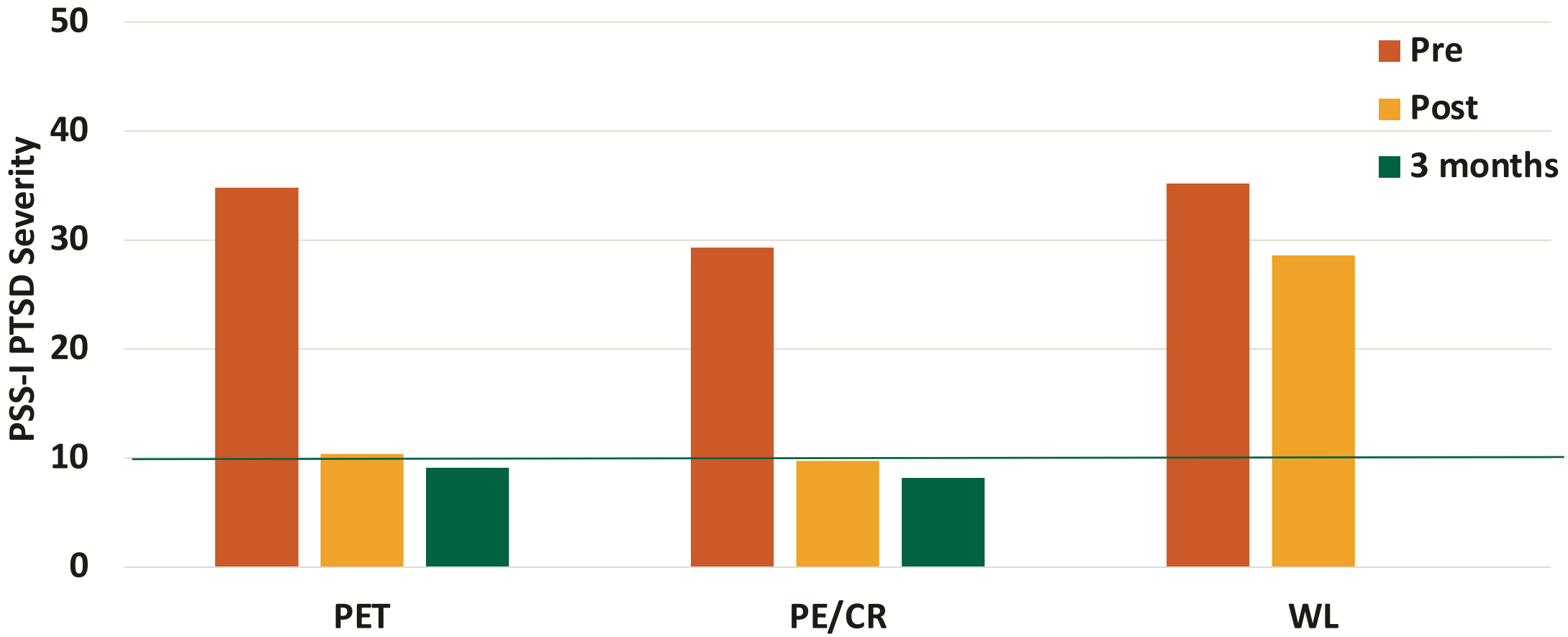
Study II with Female Assault Victims



Foa et al., 2005

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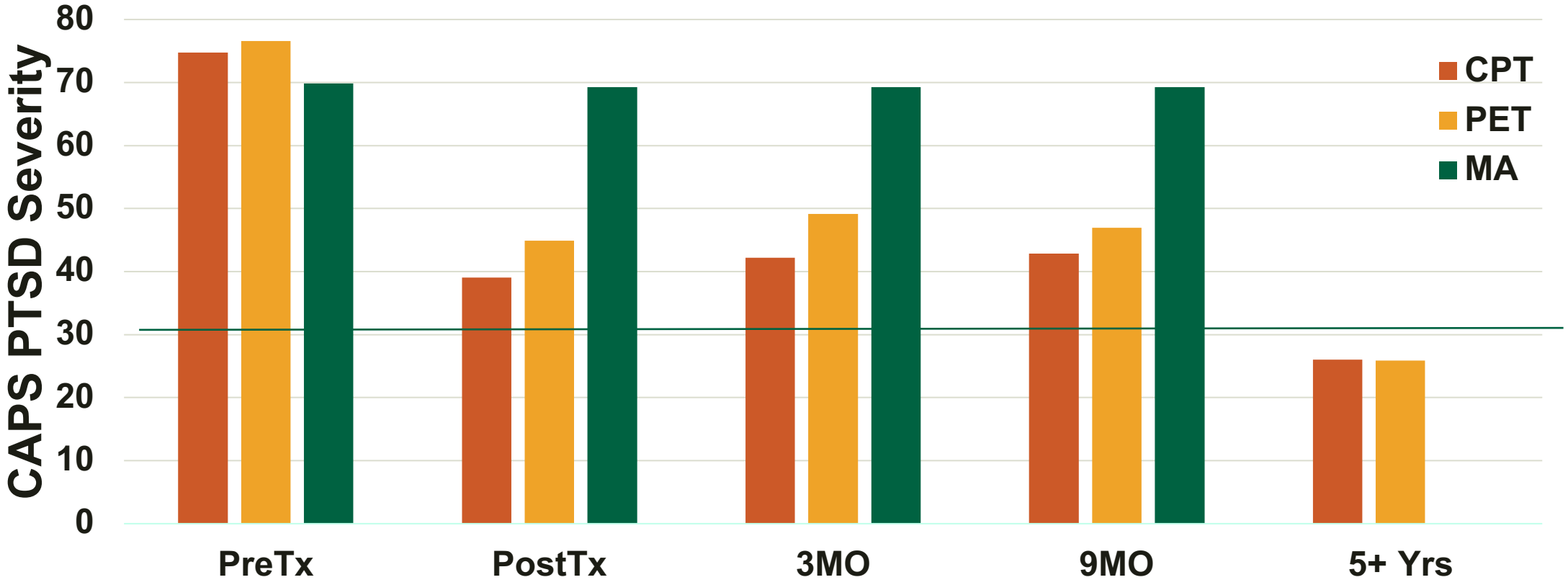
Efficacy of 9 PET Sessions Versus 12 CPT Sessions Over 5 Years



Resick et al., 2002; Resick et al., 2012

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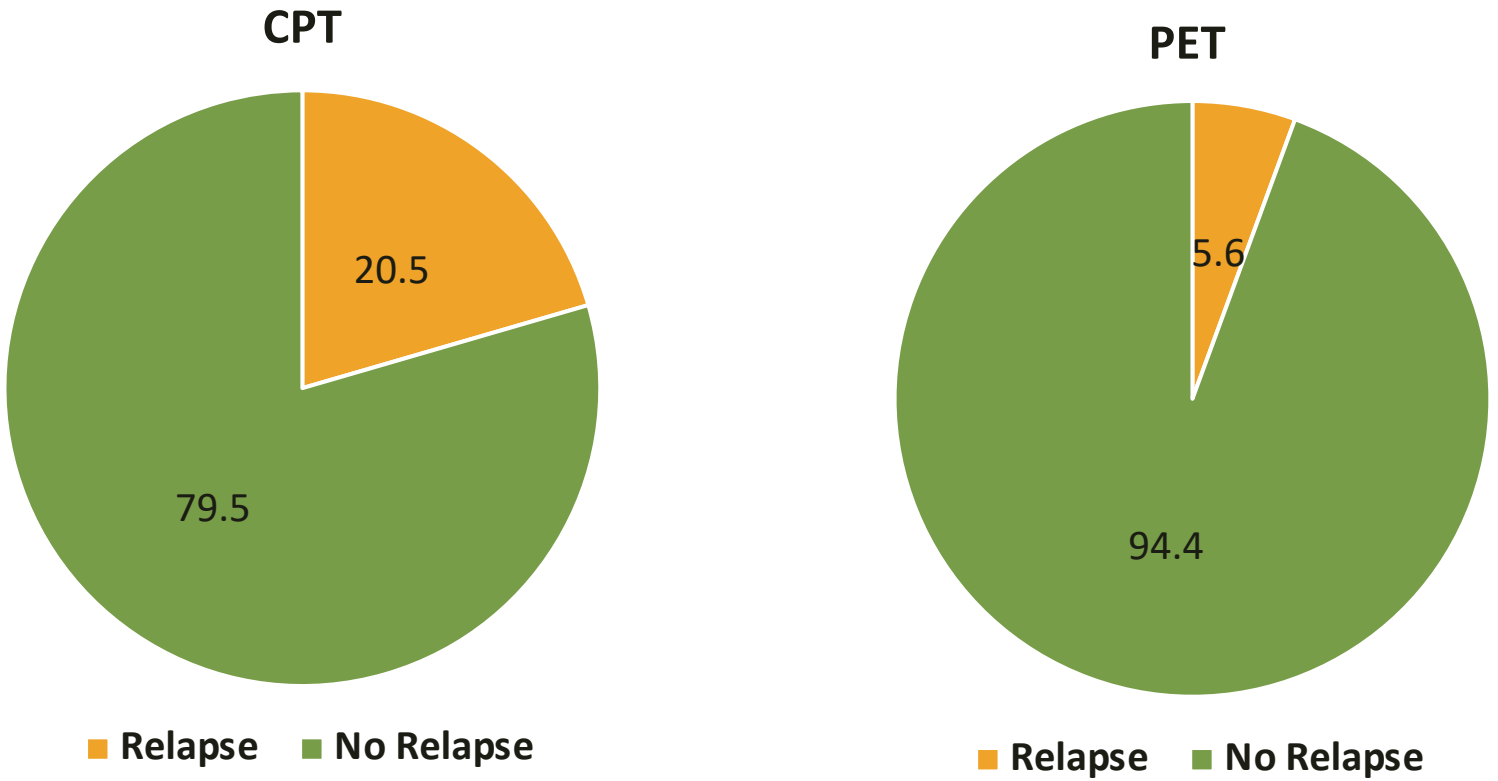
Percent Relapse of PET and CPT Completers at 5-10 Year Follow-up



There was a trend for PET to have less relapse than CPT at long-term follow-up, *p* =.057

Resick et al., 2012

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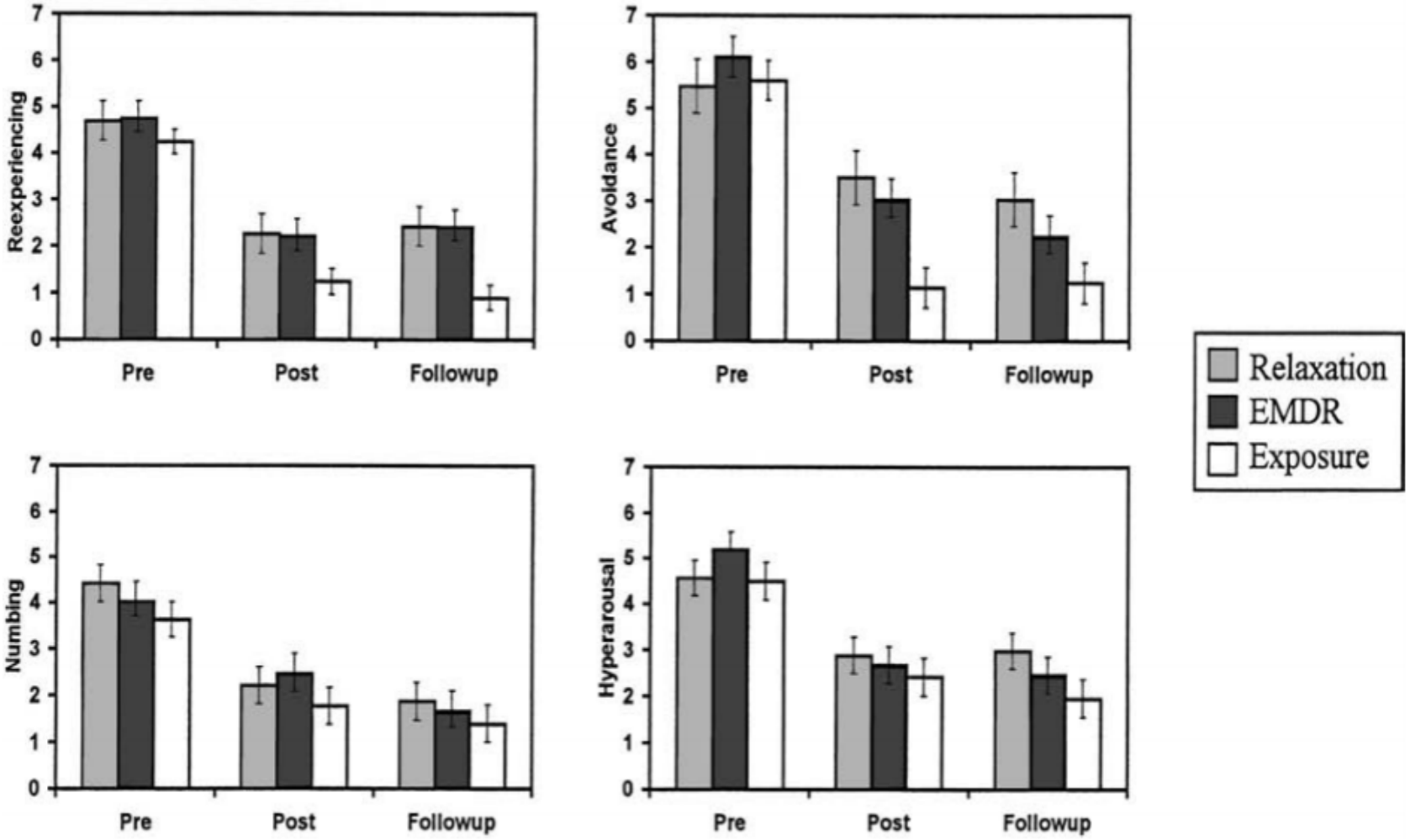
Efficacy of Exposure, EMDR, and Relaxation



Taylor et al., 2003

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Advantages of Prolonged Exposure

- PET has the largest number of studies supporting its efficacy and effectiveness
- PET has been found effective with the widest range of trauma populations
- PET has been studied in many independent centers in the U.S. and around the world
- PET has been widely disseminated in the U.S. and abroad
- Its effectiveness in the hands of non-experts has been documented in several studies

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Special Considerations for Individuals in Rural Settings

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PTSD Treatment in Rural Settings

Gaps in service provision and sociocultural factors may prevent people in rural settings from engaging in evidence-based treatment for PTSD (Dworkin et al., 2017)

<u>Gaps in service provision</u>

- **Obstacle:** PTSD often undiagnosed
- **Solution:** Treatment consistently screen for both SUD and PTSD using publicly available, free, and validated measures

- **Obstacle:** Less access to the behavioral health services (generally) and evidence-based treatments for PTSD (specifically) than people in urban areas
- **Solutions:** Utilize existing community infrastructure, collaboration between organizations and cross-train treatment providers

Borders & Booth, 2007; Bushy 1994; Hoyt et al., 1997; Meltzer et al., 2012; Nelson et al., 2007; Petterson et al., 2009; Rosmann, 2008; Taubman-Ben-Ari et al., 2001 ; Thomas et al., 2009

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PTSD Treatment in Rural Settings

Sociocultural factors

- **Obstacle:** Rural values can include self-reliance or reliance on support networks that may encourage substance use or avoidance of trauma cues
- **Solutions:** Engage informal support networks, emphasize autonomy, frame treatment as a strategy to increase self-reliance

- **Obstacle:** Stigma regarding mental health services
- **Solution:** Adapt evidence-based treatments to reflect local norms and train cultural insiders

- **Obstacle:** Disclosure of personal problems to health care providers may be discouraged
- **Solution:** Emphasize confidentiality, recognize attempts to cope, validate desire to recover

- **Obstacle:** Less access to transportation, childcare, or housing in rural settings
- **Solution:** Utilize existing infrastructure, creative funding solutions, address participation barriers (e.g., in-home treatment, telemedicine, provision of childcare as part of treatment)

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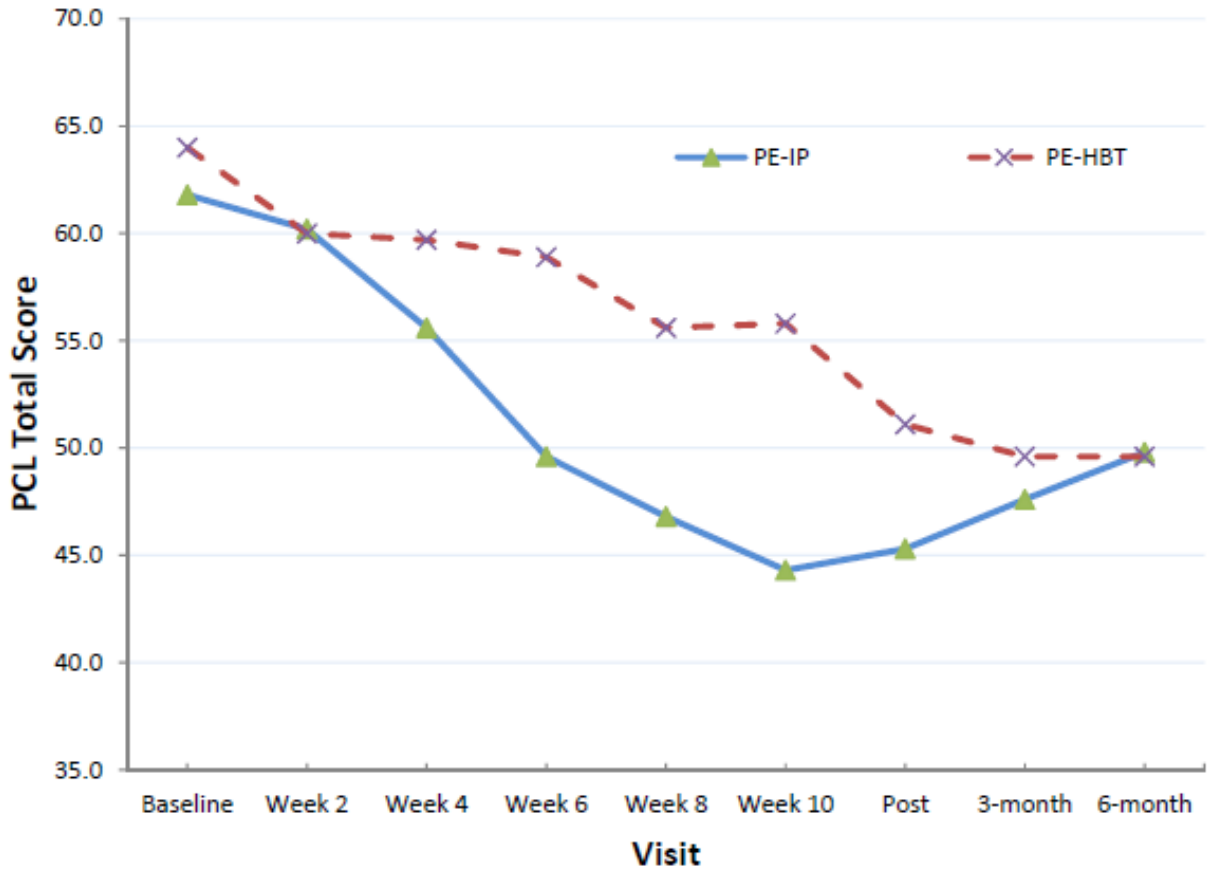
PET in Rural Settings

- Telehealth is a useful approach for the dissemination and implementation of PET to rural and under-resourced settings (Acierno et al., 2017; Gros et al., 2013)
- However, the nature of this delivery method raises challenges
- Close collaboration between treatment providers is necessary (e.g., primary care provider, PET provider, SUD treatment services)
- Availability of infrastructure and technology



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PTSD Treatment for Individuals with Concurrent Substance Use Disorders (SUDs)

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PTSD Treatment for Patients with SUDs

- Many individuals with SUDs have not received treatment for their co-occurring PTSD symptoms
- Based on the long-held notion that substance use will interfere with an individual's ability to benefit from PTSD treatment, as well as concerns that PTSD treatment will exacerbate psychiatric symptoms and prompt substance use relapse or treatment dropout

Hien et al., 2004; McGovern et al., 2009; Pitman et al., 1991; Riggs et al., 2003

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PTSD Treatment for Patients with SUDs (con't)

A growing number of studies suggest that PET can improve PTSD symptoms without exacerbating substance use among patients with SUDs when PET and SUD treatments are delivered concurrently.

Coffey et al., 2016; Foa et al., 2013; Mills et al., 2012; Roberts et al., 2015; Torchalla et al., 2012; van Dam et al., 2012

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PET and Naltrexone for Patients with Comorbid PTSD and Alcohol Dependence

	Prolonged Exposure (PET)	No Exposure (No-PET)
Naltrexone (NAL)	PET + NAL (N = 40)	No-PET + NAL (N = 42)
Placebo (PBO)	PET + PBO (N = 40)	No-PET + PBO (N = 43)

Foa et al., 2013

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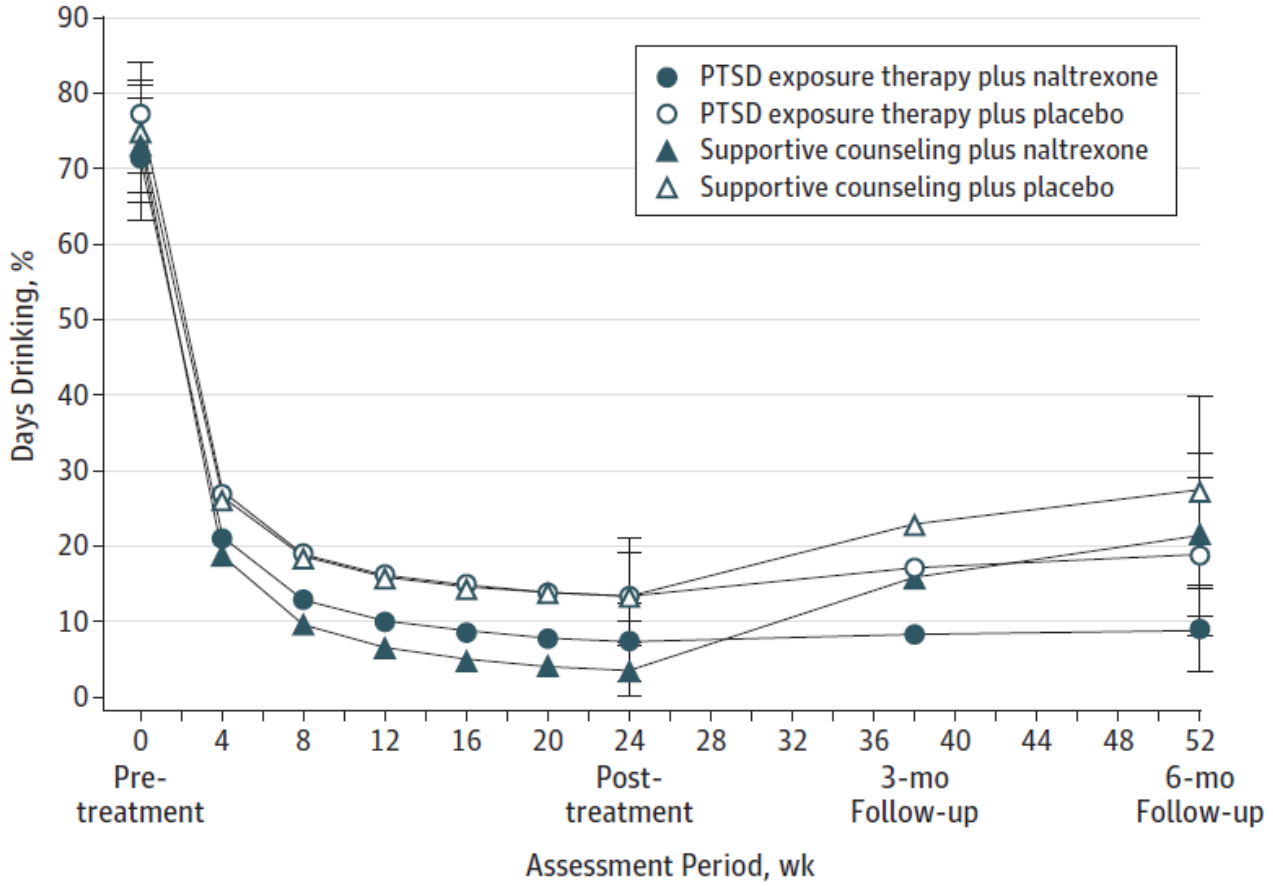
PET and Naltrexone for Patients with Comorbid PTSD and Alcohol Dependence

Figure 2. Mean Percentage of Days Drinking During Treatment and Follow-up



Foa et al., 2013

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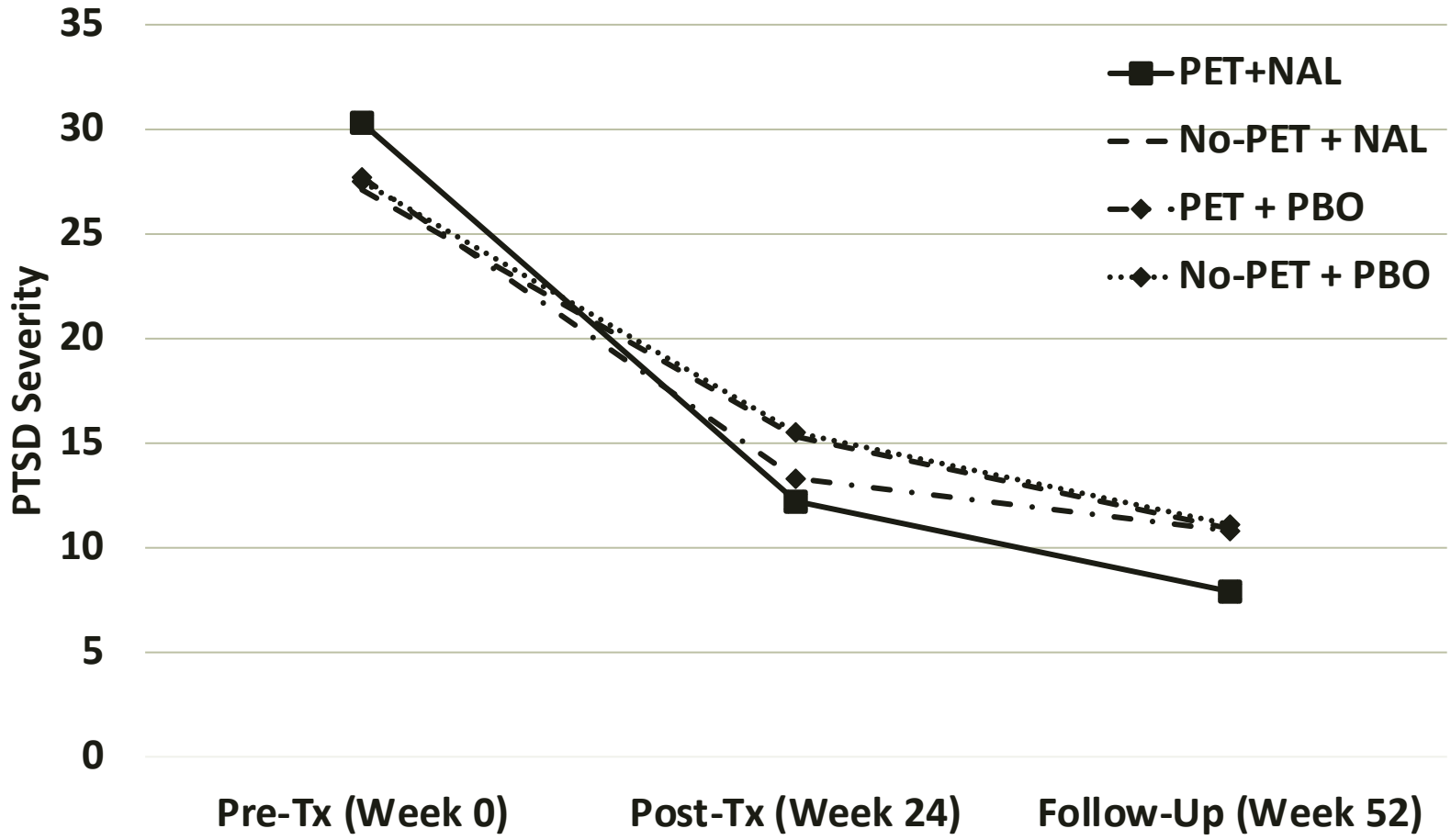
PET and Naltrexone for Patients with Comorbid PTSD and Alcohol Dependence



Foa et al., 2013

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PET for Individuals Receiving Residential Treatment for Alcohol Use Disorder

Treatments:

- PET
- PET plus trauma-focused motivational enhancement therapy (PET + MET-PTSD)
- Health Lifestyles Control Group (HLS)

Treatment consisted of 9–12 60-min individual therapy sessions plus 6 weeks of residential substance use treatment-as-usual.

Treatment as usual for substance use - based on the AA model and consisted of both group therapy and individual drug counseling

Coffey et al., 2016

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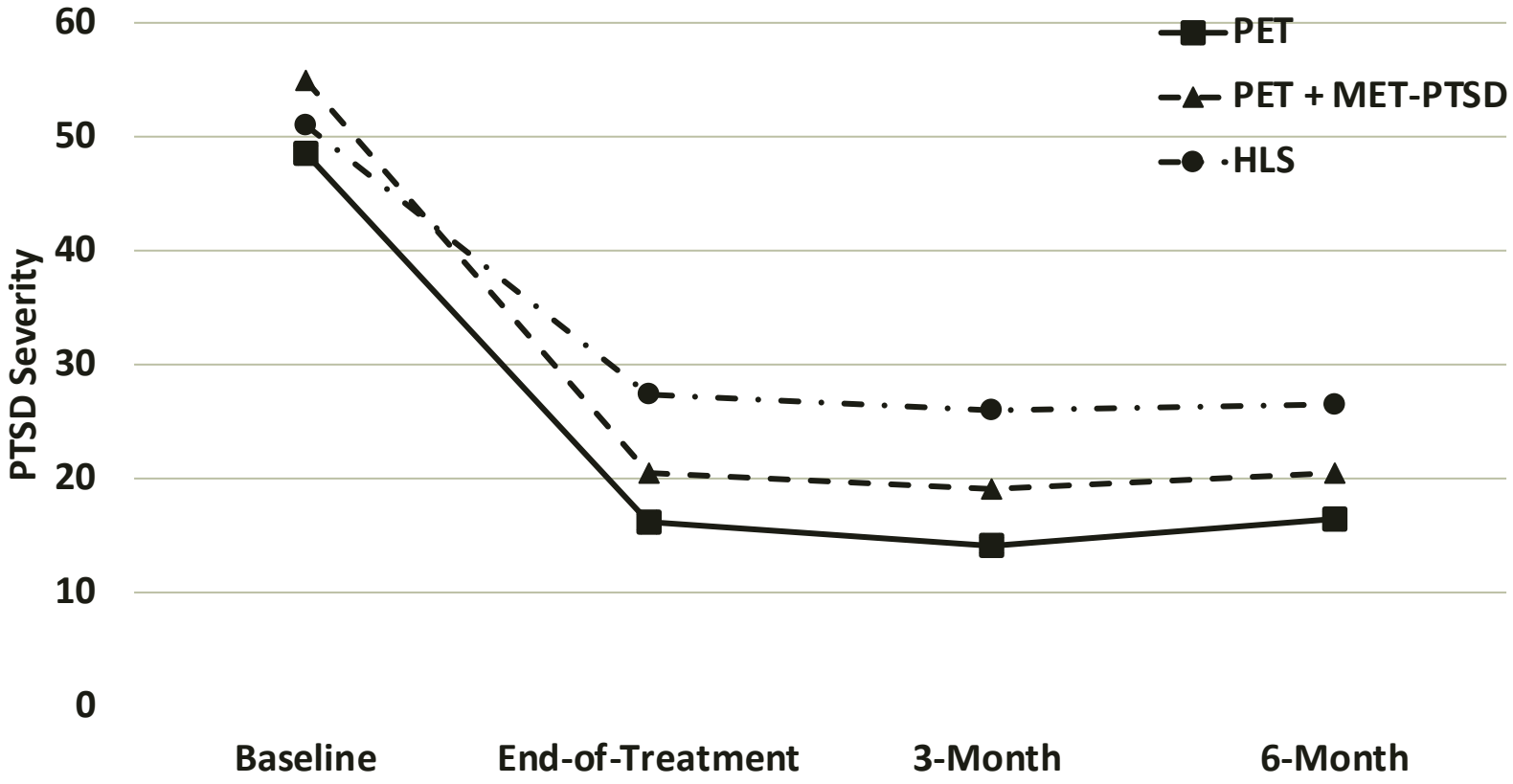
PET for Individuals Receiving Residential Treatment for Alcohol Use Disorder



Coffey et al., 2016

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PTSD Treatment for Individuals with Concurrent Opioid Use Disorder (OUD)

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PET among Patients with SUD

- Little is known about the effects of PET among patients with concurrent OUD
- Three recent studies found that PET was associated with reductions in PTSD symptom severity among patients receiving treatment for concomitant OUD:
  - Schiff et al., 2015
  - Schacht et al., 2017
  - Peck et al., 2018

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Opioid Agonist Treatment (OAT) for PTSD

- Opioid agonists may have antidepressant and anxiolytic effects

  (Dean et al., 2004; Falcon et al., 2015, 2016; Fingleton et al., 2015)

- Retrospective chart review of 2,015 veterans with PTSD found that buprenorphine was associated with significantly greater reductions in PTSD symptom severity compared to SSRIs

  (Lake et al., 2019)

- Buprenorphine alone, without counseling associated with significant reductions in psychiatric symptoms

  (Streck et al., 2018)

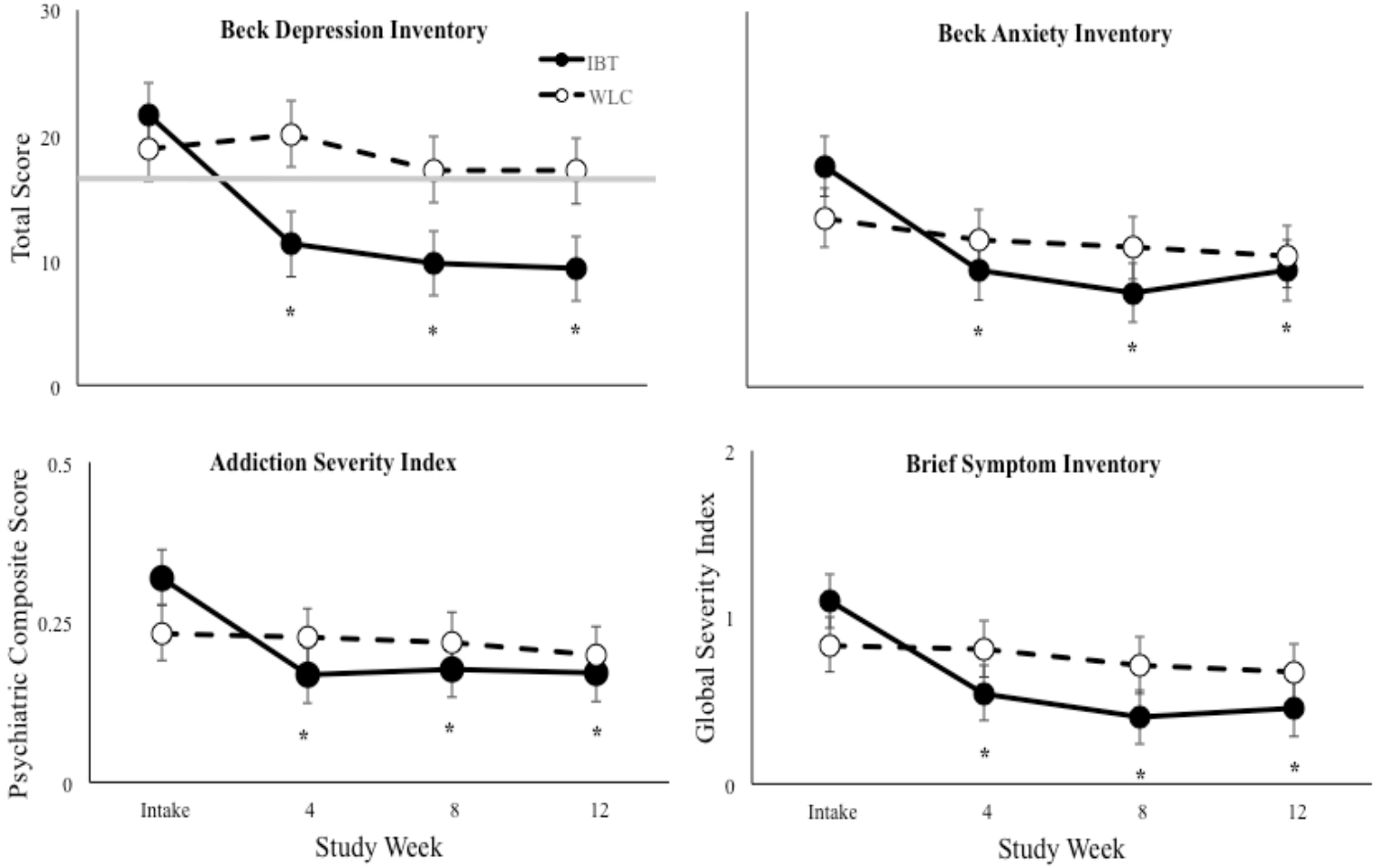

Figure 1. Changes over time in psychiatric symptoms for individuals who received buprenorphine versus who remained on the waitlist

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Ongoing Work

Randomized trial is currently underway to evaluate the effects of PET above and beyond OAT for reducing PTSD symptomatology among patients with concurrent PTSD and OUD

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Summary and Conclusions

- Trauma is not an unusual experience – most people recover with time
- When symptoms don't resolve with time – this breakdown in natural recovery is called PTSD and is associated with a host of negative consequences
- Valid and reliable structured clinical interview and self-report measures are publicly available and allow for the diagnosis of PTSD as well as the assessment of PTSD symptom severity
- There are effective interventions for PTSD – exposure-based interventions hold distinct advantages
- Work is needed to improve the uptake of these assessments and interventions in rural areas and among those with SUDs

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Questions?

Email us at cora@uvm.edu

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