



CDP Presents A Monthly Webinar Series

Treating PTSD and Co-Occurring Substance Use Disorders using Prolonged Exposure

Presenter:



Dr. Sudie Back

Before We Get Started in:

01:00:00


Q & A – You can submit a question via the chat at any point during the presentation. Questions will be answered during or the last 10 minutes of the program. While chatting, please make sure to select “All Panelists and Attendees” in chat so all can see your comments and questions!

Resources – You can find a PDF of the presentation and additional resources in your CE21 account page.

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To receive credit, you must attend the webinar all the way through the Q & A section at the end of the presentation.

Please do NOT leave the webinar!

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Disclaimer

The views expressed are those of the presenter and do not necessarily reflect the opinions of the Uniformed Services University of the Health Sciences, the Department of Defense, or the U.S. Government.



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Treating PTSD and Co-Occurring Substance Use Disorders using Prolonged Exposure

Upcoming Training Events:

CDP Presents: Treating PTSD and Co-Occurring Substance Use Disorders Using Prolonged Exposure	June 21 st
Cognitive Behavioral Therapy for Suicide Prevention	June 30 th
Dancing with Ambivalence in Psychotherapy: Moving between Motivational Interviewing and EBPs with Balance and Grace	July 20 th
Dyadic interventions: Involving significant others in suicide prevention	September 22 nd
Debunking Common Misperceptions about Sleep Interventions	November 9 th

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Treating PTSD and Co-Occurring Substance Use Disorders using Prolonged Exposure

Sorry We Missed You!

We have you covered!
Check out last month's series:

Psychological Practice with Transgender and Gender Nonconforming

The presentation is powerful. I have limited knowledge of the history and how it impacted the service members and/or veterans. I am glad that I attended it. It is very helpful in my work and private practice.

Presenter was knowledgeable. He got down to everyone individual levels and brought them up to speed of experiences that transgender and gender non conforming veterans and service members experience. Was personal yet professional which brought in a balance one does not often see when in academic webinars.



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Enhancing Your Experience

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Presenter:



Sudie E. Back, Ph.D.

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Disclosures

All faculty, course directors, planning committee, content reviewers and others involved in content development are required to disclose any financial relationships with commercial interests. Any potential conflicts were resolved during the content review, prior to the beginning of the activity.

Dr. Back has no financial interests to disclose.

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Next Steps



Before You Go:

Thank you for attending and participating in our training.

Please note: Attendance cannot be taken before the webinar is closed. Please allow 2 hours for our system to track attendance.

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Treating PTSD and Co-Occurring Substance Use Disorders Using Prolonged Exposure



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Ms. Tanjanika Shivers



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The COPE trials have been sponsored by NIDA and NIAAA (R01 DA030143; PI: Back and R01 AA02811; PIs: Back & Flanagan) and the therapy manuals are published through Oxford University Press.

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Learning Objectives

1. Describe the relationship between **PTSD and Substance Use Disorders (SUD)** symptoms
2. Identify the benefits of providing **Prolonged Exposure (PE)** to patients with PTSD/SUD
3. Describe the clinical application of **COPE** in PTSD/SUD patients

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Overview of the PTSD-SUD Connection

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Post-traumatic Stress Disorder (PTSD)

A chronic disorder that may occur after exposure to *Criterion A event* (e.g., actual or threatened death, serious injury, or sexual violence).

Symptoms:

Re-experiencing (e.g., intrusive memories, nightmares)

Avoidance of trauma-related stimuli (e.g., places, activities, thoughts, feelings) (substance use)

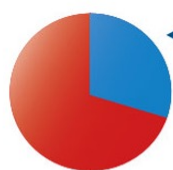
Negative alterations in mood and cognitions (e.g., negative beliefs about self/others, shame and guilt)

Marked alterations in arousal and reactivity (e.g., hypervigilance, angry outbursts, sleep impairment, self-destructive behaviors)

Duration of symptoms \geq 1 month

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How common is PTSD?



70% of adults in the U.S. have experienced some type of traumatic event at least once in their lives.



Up to 20% of these people go on to develop PTSD.



An estimated 8% of Americans – 24.4 million people – have PTSD at any given time. That is equal to the total population of Texas.



An estimated one out of every nine women develops PTSD, making them about twice as likely as men.

PTSD is the most common mental health disorder among Veterans presenting at VA hospitals (up to ~30% lifetime prevalence).

Kilpatrick et al., 2013; Kessler et al., 1995, 2005; PTSDunited.org; Seal et al., 2007

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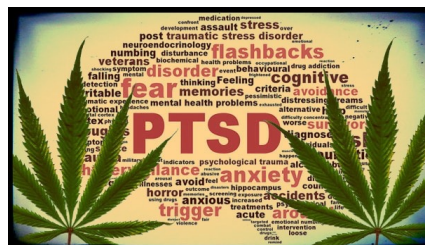
PTSD/SUD Comorbidity



+



- Individuals with (vs. without) PTSD are **2-5 times** more likely to have a substance use disorder.
- Current SUD rates in general population = **3.8% vs. 7.1%** in Veteran populations and **18.2%** among Veterans 18-53 years old (Kessler et al, 2005; SAMHSA, 2007).
- Among Veterans serving in Vietnam era or later (N = 1,001,996), **41.4%** with a substance use disorder were diagnosed with PTSD (Petrakis et al., 2011).
- Study of 46,268 military veterans from recent conflicts found that **72.3%** of those with cannabis use disorder also had PTSD (Bryan et al. 2021).



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Trauma, PTSD, and SUD Comorbidity

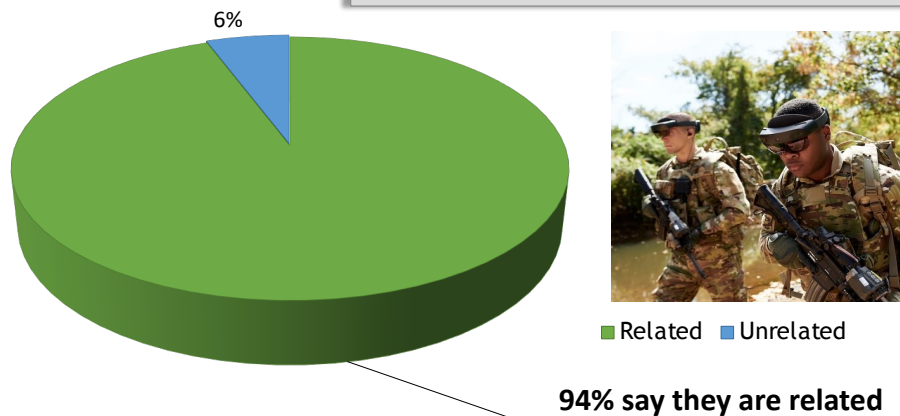
- Many individuals with co-occurring PTSD/SUD report **early childhood traumas, multiple traumas, and repeated victimization.**
- Patients often use substances to manage or “self-medicate” PTSD symptoms (e.g., to sleep and not remember nightmares, to “numb out” and forget the trauma, to mitigate hyperarousal symptoms).
- As debilitating as PTSD can be, its clinical course is worsened by co-occurring SUD:
 - Poorer physical health
 - Poorer treatment response
 - Earlier relapse
 - Higher unemployment, lower income
 - More inpatient hospitalizations
 - Higher rates of suicidal ideation and attempted suicide

Brown et al., 1998; El-Gabalawy et al., 2018; McDevitt-Murphy et al., 2010; Meshberg-Cohen et al., 2019; Norman & Hien, 2020; Norman et al., 2007; 2018; Ouimette et al., 2006; Petrakis et al., 2011; Seal et al., 2007; Tate et al., 2007; Vujanovic & Back, 2019

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Do you believe that your substance use and PTSD symptoms are **related**?

Almost all (94%) indicate that their substance use and PTSD symptoms are related.

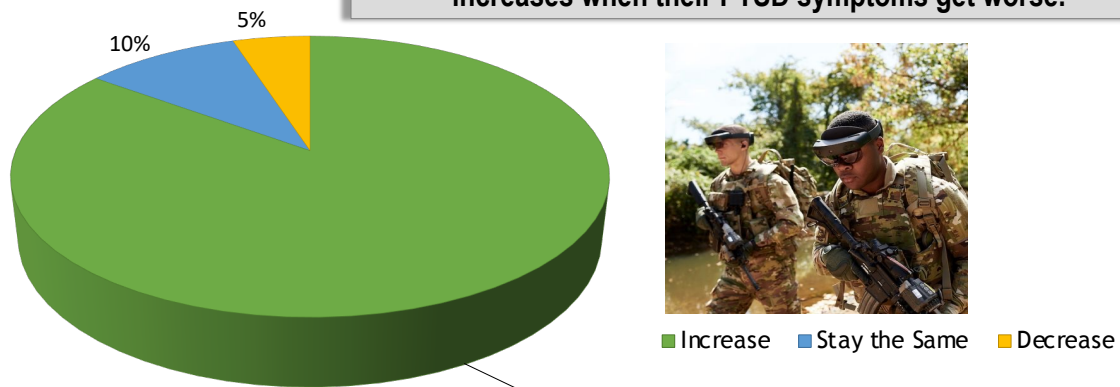


(Back et al., 2014)

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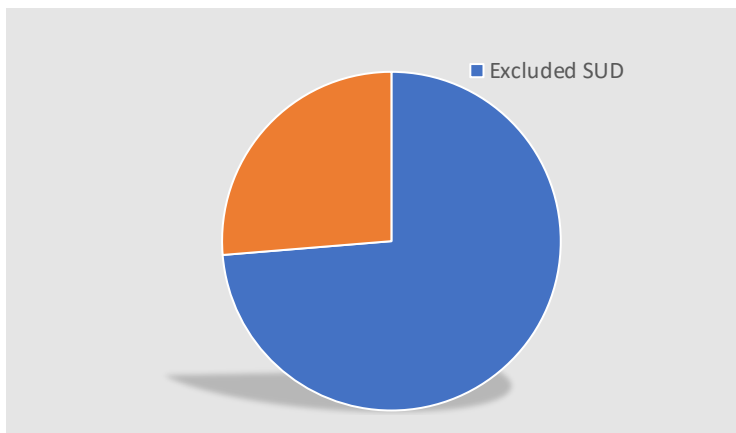
If your PTSD symptoms *get worse*, what happens to your substance use?

Most Veterans (85%) indicate that their substance use increases when their PTSD symptoms get worse.



85% report it increases

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Clinical trials for PTSD typically
exclude SUD comorbidity

- Out of 156 RCTs, 73.7% excluded participants based on substance use status (e.g., current, past year, or lifetime diagnosis of SUD) (Leeman et al., 2017).
- Only 7.7% of studies examined substance use related outcomes and **no studies observed increases in substance use** during PTSD treatment.

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How is Co-occurring PTSD/SUD Treated?

- Historically, the sequential treatment approach was the only option.

SUD Treatment

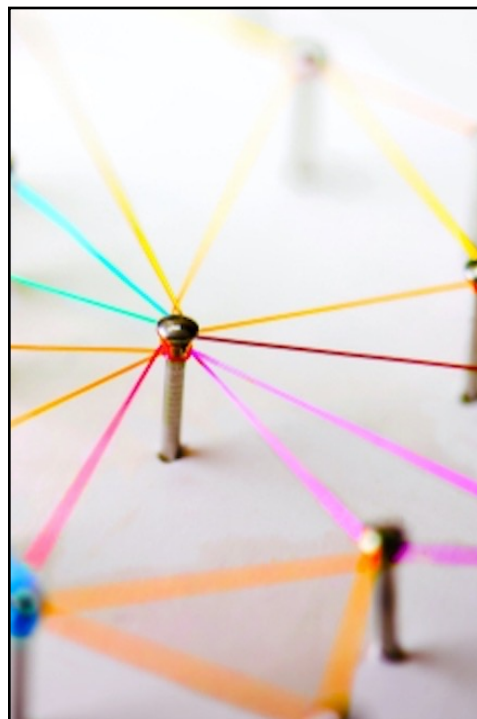


PTSD Treatment

- Siloed, inefficient, little cross-provider communication.
- Many Veterans tend to prefer integrated treatment (Back et al., 2014).
- PTSD improvement is associated with SUD improvement, but there is minimal evidence of SUD reduction improving PTSD symptoms (Back et al., 2006; Hien et al., 2010).

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Integrated, Trauma-Focused Treatment

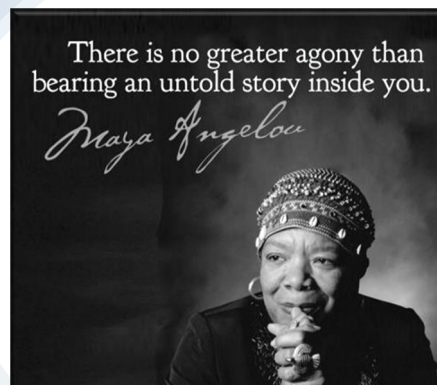


- Trauma-focused treatment** = uses cognitive, emotional, or behavioral techniques to help *process a traumatic experience* and in which *the trauma focus is a central component* of the therapy (VA/DoD CPG, 2017).
- Integrated treatment** synergistically combines evidence-based a) trauma-focused treatment for PTSD along with b) SUD treatment.
- One treatment episode, one clinician.

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Why Use Integrated, Trauma-Focused Treatment?

- Untreated PTSD is a risk factor for relapse/use.
- Reductions in PTSD symptoms are more likely to lead to reductions in SUD, than the reverse.
- Patients recognize the symptom connection and many prefer integrated treatment.
- More efficient use of time and resources.
- Recommended by VA/DOD and other clinical practice guidelines.



(Back et al., 2009, 2014; Brown et al., 1998; Flanagan et al., 2016; Hien et al., 2010; Norman & Hamblen, 2017; Vujanovic & Back, 2019)

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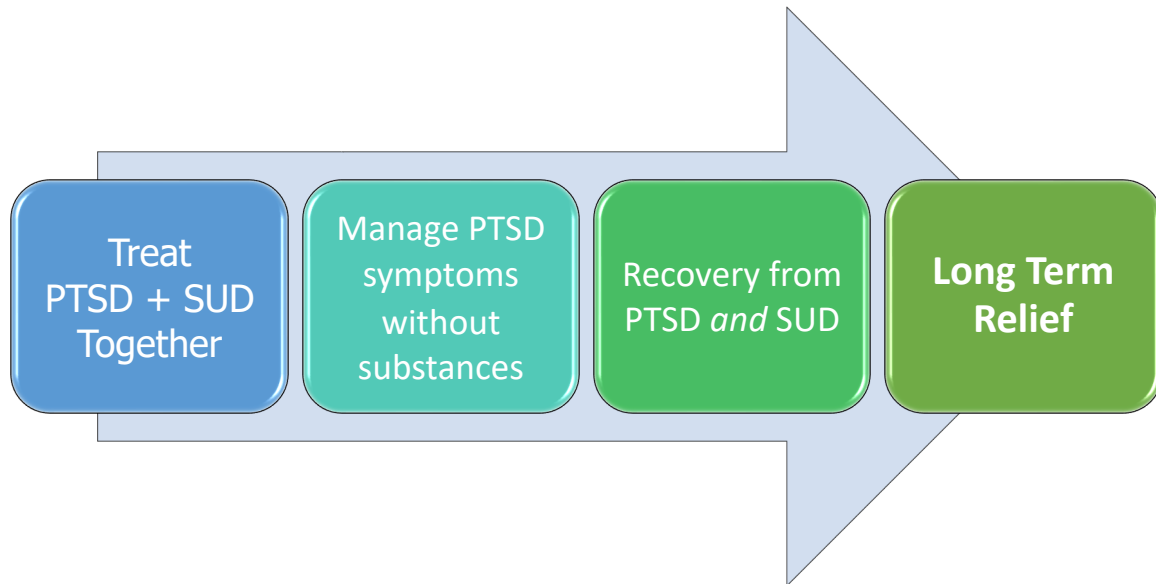
Common Myths

- Talking about the trauma will make patients relapse or use more.
- You can't start trauma work until patients are "clean" and sober.
- Abstinence is the only option.

***Empirical evidence disconfirms these myths. None supported by research.**

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Integrated PTSD/SUD Care Model



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Concurrent Treatment of PTSD and SUD Using Prolonged Exposure (COPE)

COPE is a 12-session, evidence-based, trauma-focused integrated intervention.

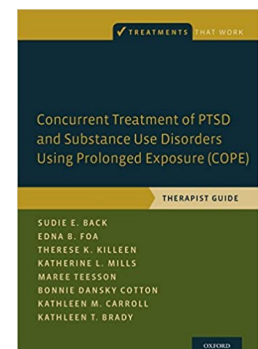
Sessions are 90 minutes, delivered once per week, in an individual format.

Synthesis of two evidence-based treatments:

- Prolonged Exposure (PE) for PTSD
- Cognitive Behavioral Therapy (CBT) for SUD

Primary goals:

- Provide psychoeducation
- Decrease PTSD symptoms via PE
- Decrease substance use using CBT techniques



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COPE Studies to Date

Research to date includes 4 RCTs, 2 open-label trials, 2 case reports, 2 ongoing RCTs. Findings show COPE is safe, feasible, and leads to significant reduction in PTSD and SUD (> 500 patients).

Lead author, year	COPE Study Description	Civilian or Veteran
Brady et al., 2001	First open-label trial (cocaine and PTSD)	Civilian
Mills et al., 2012	First RCT (polysubstance drug use and PTSD, Australia)	Civilian
Back et al., 2012	First case report OEF/OIF Veteran (alcohol and PTSD)	Veteran
Ruglass et al., 2017	RCT in sub-threshold or full PTSD (polysubstance)	Civilian
Persson et al., 2017	Open-label trial among women (alcohol and PTSD, Sweden)	Civilian
Jaconis et al., 2017	First telehealth case (female with alcohol and MST)	Veteran
Back et al., 2019	First RCT in military Veterans (mostly alcohol and PTSD)	Veteran
Norman et al., 2019	First comparison of COPE vs. Seeking Safety (alcohol and PTSD)	Veteran
Mills et al., ongoing	First use of COPE in adolescents (COPE-A, Australia)	Civilians
Back & Flanagan, ongoing	First combination of COPE + medication (oxytocin)	Veterans

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Who is COPE for?

- Diagnosis of current PTSD and SUD
- Some memory of the trauma
- Desire to significantly reduce or stop substance use. If no desire, consider motivation interviewing (MI).

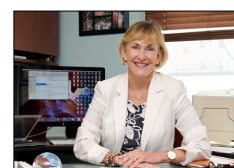
Safety issues that take priority prior to initiating therapy:

- Imminent suicidal or homicidal behavior (plan and intent)
- Medically supervised detoxification is necessary
- Ongoing domestic violence

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Initial Proof-of-Concept Study

- N = 39 individuals (82.1% women, average age = 34) with cocaine dependence and PTSD
- Average age = 34, 8% married, 51% employed
- 74.4% reported rape, 94.9% reported physical assault



Dr. Kathleen Brady

Treatment outcome	Pre- to Posttreatment ^a	
	M(SD)	M(SD)
IIES		
Intrusion	19.5 (13.0)	9.1 (7.1)*
Avoidance	20.1 (9.1)	14.6 (8.2)
Total	39.6 (21.4)	23.8 (13.7)
CAPS		
Intrusion	9.4 (6.3)	3.2 (6.7)**
Avoidance	19.7 (10.1)	5.8 (8.9)**
Hyperarousal	16.6 (7.9)	8.7 (11.6)*
Total	45.2 (19.8)	15.8 (23.0)***
MISS		
Total	111.7 (21.9)	83.7 (24.8)*
BDI	12.1 (8.0)	5.7 (7.4)*
ASI		
Family	0.28 (0.19)	0.18 (0.16)
Medical	0.35 (0.37)	0.26 (0.34)
Employment	0.61 (0.37)	0.57 (0.38)
Psychiatric	0.46 (0.10)	0.19 (0.17)***
Legal	0.13 (0.17)	0.07 (0.07)
Drug	0.20 (0.08)	0.08 (0.07)***
Alcohol	0.27 (0.22)	0.11 (0.16)***

Positive UDS Tests

At treatment entry = 12.8%
 First half of treatment = 12.2%
 Second half of treatment = 9.7%

(Brady, Dansky, Back, Foa & Carroll, 2001)

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The Journal of the American Medical Association



August 15, 2012

ORIGINAL CONTRIBUTION

Integrated Exposure-Based Therapy for Co-occurring Posttraumatic Stress Disorder and Substance Dependence

A Randomized Controlled Trial

Katherine L. Mills, PhD
 Marce Teesson, PhD
 Sudie E. Back, PhD
 Kathleen T. Brady, MD, PhD
 Amanda L. Baker, PhD
 Sally Hopwood, MPsych (Clin)
 Claudia Sannibale, PhD
 Emma L. Barnett, PhD
 Sabine Merz, PhD
 Julia Rosenfield, MPsych (Clin)
 Philippa L. Ewer, BPsych (Hons)

Context There is concern that exposure therapy, an evidence-based cognitive-behavioral treatment for posttraumatic stress disorder (PTSD), may be inappropriate because of risk of relapse for patients with co-occurring substance dependence.

Objective To determine whether an integrated treatment for PTSD and substance dependence, Concurrent Treatment of PTSD and Substance Use Disorders Using Prolonged Exposure (COPE), can achieve greater reductions in PTSD and substance dependence symptom severity compared with usual treatment for substance dependence.

Design, Setting, and Participants Randomized controlled trial enrolling 103 participants who met DSM-IV-TR criteria for both PTSD and substance dependence. Participants were recruited from 2007-2009 in Sydney, Australia; outcomes were assessed at 9 months postbaseline, with interim measures collected at 6 weeks and 3 months postbaseline.

Interventions Participants were randomized to receive COPE plus usual treatment (n=55) or usual treatment alone (control) (n=48). COPE consists of 13 individual 90-minute sessions (ie, 19.5 hours) with a clinical psychologist.

Main Outcome Measures Change in PTSD symptom severity as measured by the Clinician-Administered PTSD Scale (CAPS; scale range, 0-240) and change in severity of substance dependence as measured by the number of dependence criteria met according to the Composite International Diagnostic Interview version 3.0 (CIDI; range, 0-7), from baseline to 9-month follow-up. A change of 15 points on the CAPS scale and 1 dependence criterion on the CIDI were considered clinically significant.

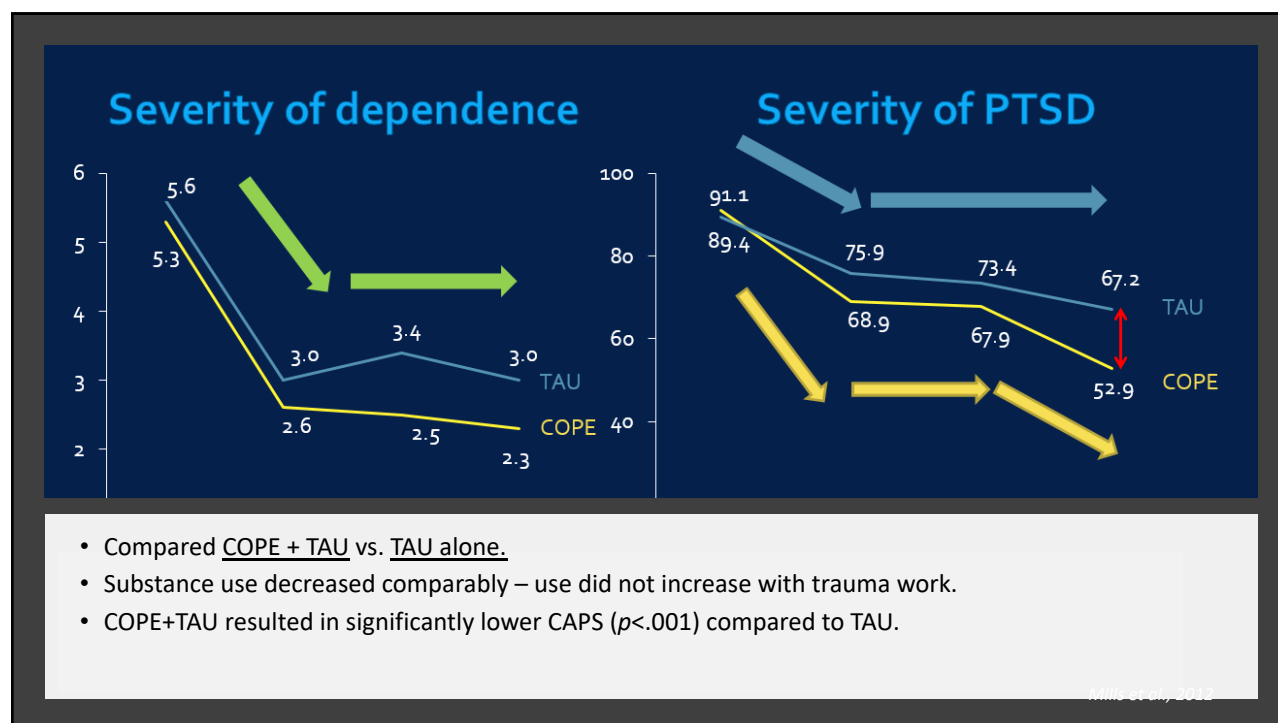
Results From baseline to 9-month follow-up, significant reductions in PTSD symptom severity were found for both the treatment group (mean difference, -38.24 [95% CI, -47.93 to -28.54]) and the control group (mean difference, -22.14 [95% CI, -30.33 to -13.95]); however, the treatment group demonstrated a significantly greater reduction in PTSD symptom severity (mean difference, -16.09 [95% CI, -29.00 to -3.19]). No significant between-group difference was found in relation to improvement in severity of substance dependence (0.43 vs 0.52; incidence rate ratio, 0.85 [95% CI, 0.60 to 1.21]), nor were there any significant between-group differences in relation to changes in substance use, depression, or anxiety.

Conclusion Among patients with PTSD and substance dependence, the combined use of COPE plus usual treatment, compared with usual treatment alone, resulted in improve-

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Trauma/PTSD characteristics		Substance use characteristics	
Trauma/PTSD	N = 103	Substance use	N = 103
Age of first trauma	8 years old	History of injection drug use	79.6%
Childhood trauma (before 15)	76.7%	Prior SUD treatment	93.2%
Prior PTSD treatment	35.0%	<u>Past-month substance use</u>	
Number of traumas	6 (2-10)	- Benzodiazepines	73%
Average baseline CAPS	90	- Cannabis	69%
<u>Trauma types</u>		- Alcohol	67%
- Physical assault	93%	- Heroin	45%
- Threatened or held captive	89%	- Amphetamines	42%
- Witnessed injury or death	79%	- Cocaine	21%
- Sexual assault	78%	<u>Substance of Concern</u>	
- Accident or disaster	66%	- Heroin	21%
- Torture	24%	- Cannabis	19%
- Combat experience	2%	- Amphetamines	18%
		- Benzodiazepines	16%
		- Alcohol	12%
		- Cocaine	7%

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Patient Quotes from Australian COPE RCT

- “Overall I thought it was great. *No one had ever talked to me about my trauma before. It was good to put a name to my symptoms.*”
- “It has changed my life. It was hard going through it but since doing it I have made a lot of positive changes... *Doing the imaginal exposure really took the fear away.*”
- “I didn’t even realize that PTSD treatment was available...*I can now talk about the incident without freaking out.*”
- “*The imaginal exposure was the hardest part but also the most useful.*”

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RCT in Military Veterans

Ralph H. Johnson VA, Charleston SC

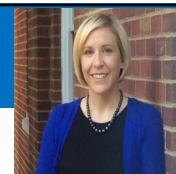
- N = 81
- 90.1% male, average age = 40.4 yrs
- Military-related index trauma = 81.0%
- 69.7% physical assault, 24.7% sexual trauma
- 63% alcohol use disorder, 27% alcohol & drug use disorders, 10% drug use disorder only.
- CAPS baseline = 81
- Lifetime SI = 42%, lifetime attempt = 27%
- Compared COPE vs. Relapse Prevention (RP)



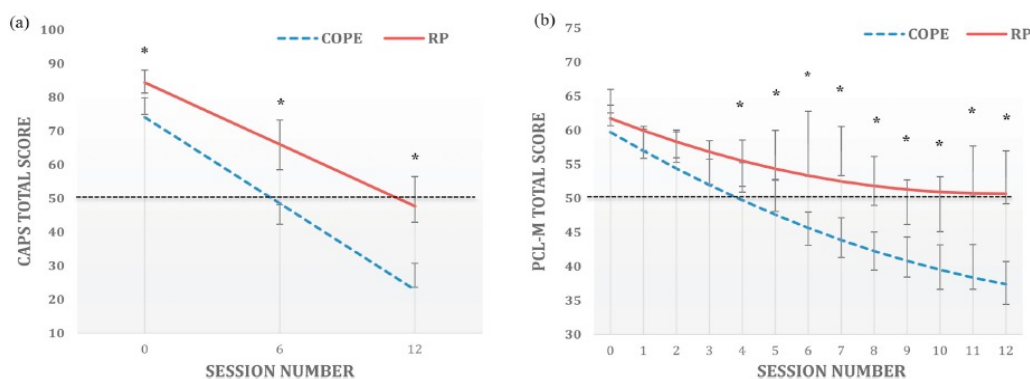
(Back, Killeen, Badour, Flanagan, Allan, Santa Ana, Lozano, Korte, Foa & Brady, 2019)

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PTSD Symptom Improvement: COPE vs. Relapse Prevention



Dr. Christal Badour



- COPE resulted in lower CAPS ($p < .001$, controlling for baseline) and PCL ($p = .01$) scores than RP.
- More participants achieved diagnostic remission in COPE vs. RP (ITT sample; 59.3% vs. 22.2%; $p = .002$; Odds Ratio [OR] = 5.28).

Back et al., 2019

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Results continued

Substance Use:

- Both groups had significant and comparable reduction.
- 40.7% in COPE and 25.9% in RP were abstinent during last 2 weeks of tx.
- At 6 months follow-up, significantly lower average number of drinks per drinking day in COPE than RP (4.5 vs. 8.3, $p < .05$).

Therapeutic Alliance (TA):

- Positive therapeutic alliance at session 6 (COPE $M=5.3$ vs. RP $M=5.5$) and 12 (COPE $M=5.2$ vs. RP $M=5.4$).

Retention

- No differences in retention (# sessions in COPE = 9 vs. RP = 7).
- Majority of available COPE sessions (73.7%) and RP sessions (61.7%) attended.

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JAMA Psychiatry | Original Investigation

Efficacy of Integrated Exposure Therapy vs Integrated Coping Skills Therapy for Comorbid Posttraumatic Stress Disorder and Alcohol Use Disorder A Randomized Clinical Trial

Sonya B. Norman, PhD; Ryan Trim, PhD; Moira Haller, PhD; Brittany C. Davis, PhD; Ursula S. Myers, PhD; Peter J. Colvonen, PhD; Erika Blanes, MA; Robert Lyons, BS; Emma Y. Siegel, BA; Abigail C. Angkaw, PhD; Gregory J. Norman, PhD; Tina Mayes, PhD

JAMA Psychiatry. doi:10.1001/jamapsychiatry.2019.0638



Dr. Sonya Norman

- N = 119 Veterans with PTSD and alcohol use disorder
- Average age = 41.6 yrs, 89.9% males
- Mean number of traumatic events = 8.3
- 84.0% combat trauma was index
- 82.4% physical assault, 23.5% sexual trauma

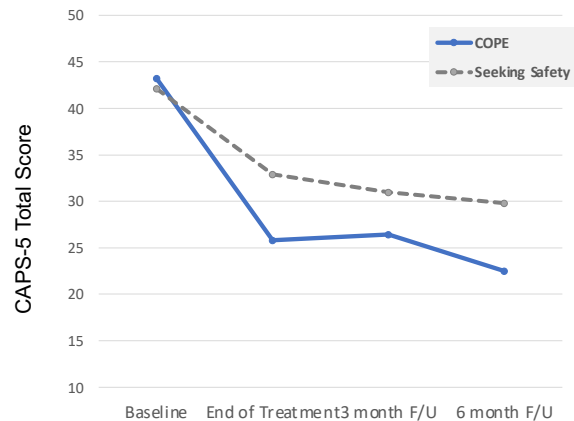
COPE vs. Seeking Safety (SS):

- SS is typically 25 sessions in length – 12 sessions of both treatments used.
- Coping skills based
- No exposure or trauma work
- Focuses on current symptoms (Taking Back Your Power, Asking For Help, Taking Good Care of Yourself, Compassion, Integrating the Split Self, Commitment, Community Resources)

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PTSD Symptom Improvement: COPE vs. Seeking Safety

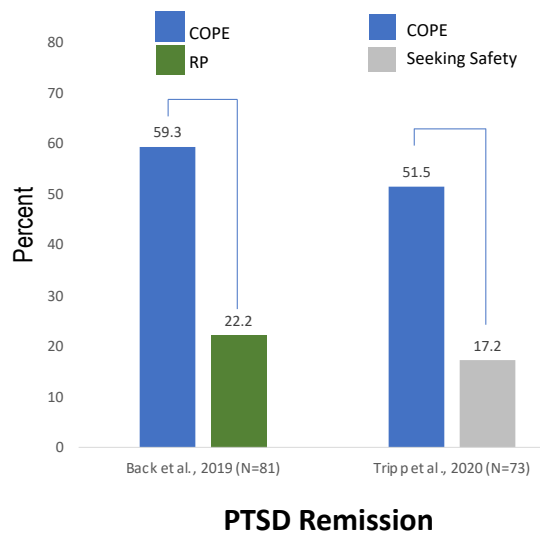
- Greater reduction in PTSD and higher rates of remission in COPE vs. SS ($p < .05$).
- Comparable % days abstinent during COPE (67.5%) and SS (63.1%).
- Overall, 10/12 sessions attended, with fewer sessions in COPE (8.4) than SS (11.4) ($p = .001$).
- COPE led to greater reduction in trauma-related guilt than SS ($p = .04$; Capone et al., 2020). See also Saraiya et al., 2022.



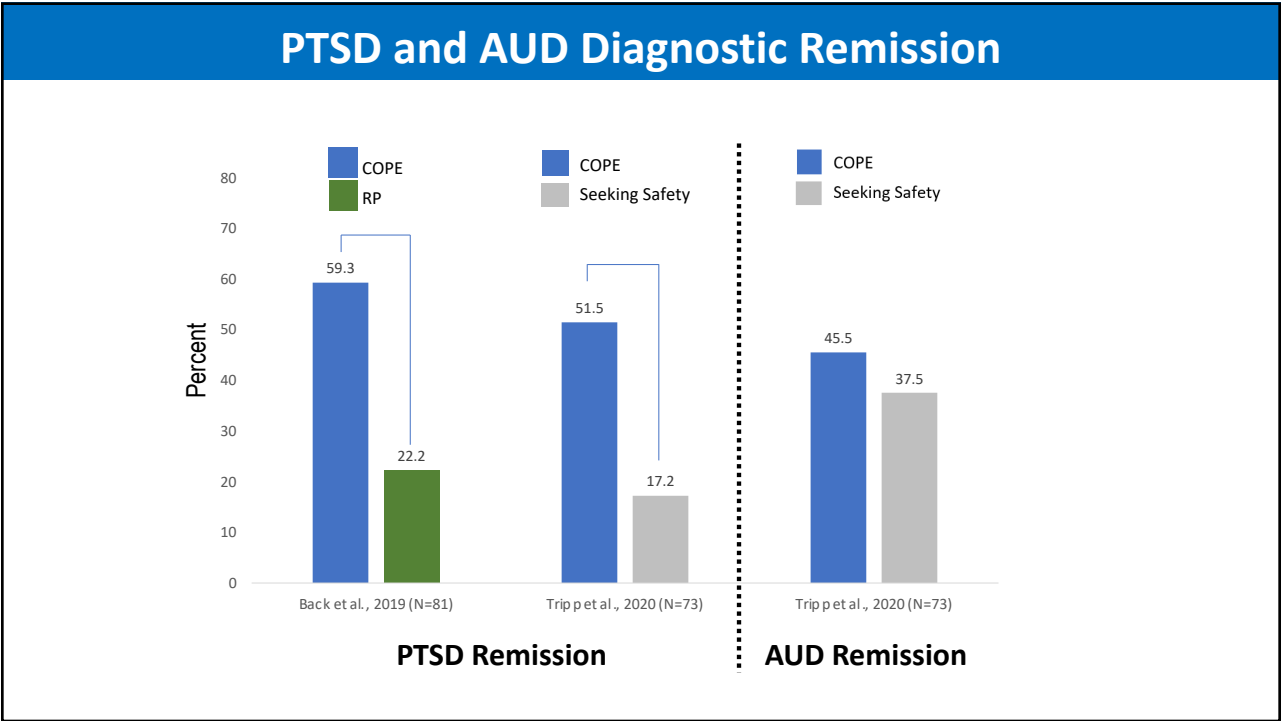
Norman et al., 2019

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PTSD and AUD Diagnostic Remission



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COPE Therapy Components

A photograph showing several dark puzzle pieces being assembled into a heart shape. The background is a bright, hazy sunset or sunrise with a sunburst effect visible through the center of the forming heart.

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CBT Techniques To Decrease PTSD and SUD

- **Prolonged Exposure (PE)** including in-vivo & imaginal exposure.
- **CBT techniques for SUD** to manage cravings, thoughts about using, and skills to help reduce/quit use.
- **Psychoeducation**
 - Common reactions to trauma (including avoidance and substance use)
 - Interrelationship between PTSD symptoms and use
 - Handouts for loved ones/family
- **Breathing Retraining** technique to manage anxiety and cravings.

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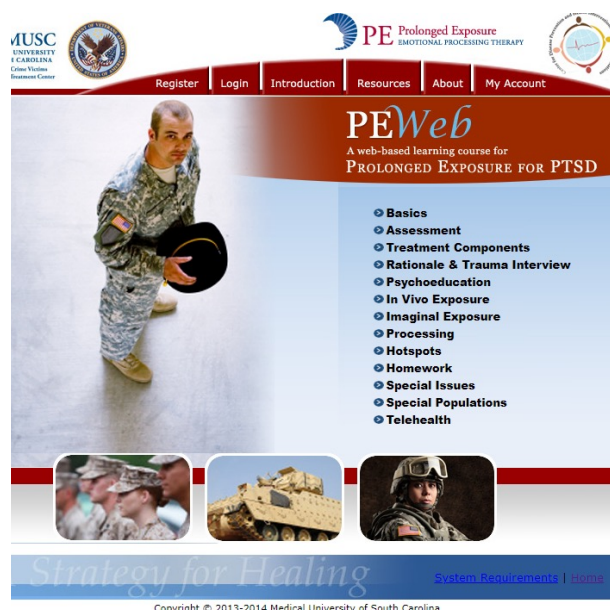
Table 1. Table of Contents – COPE Therapy Sessions

Session	Prolonged Exposure for PTSD	Relapse Prevention for SUD
1	Introduction and overview of the treatment, psychoeducation regarding the interrelationship between PTSD and SUD, rationale for exposure, goals for therapy, breathing retraining exercise	
2	Commons reactions to trauma	Awareness of cravings
3	In vivo hierarchy	Managing cravings
4	Initiate imaginal exposure, continue in vivo exposures	Copings with cravings skills review
5	Continue imaginal and in vivo exposures	Planning for emergencies
6	Continue imaginal and in vivo exposures	Awareness of high-risk thoughts
7	Continue imaginal and in vivo exposures	Managing high-risk thoughts
8	Continue imaginal and in vivo exposures	Refusal skills
9	Continue imaginal and in vivo exposures	Seemingly irrelevant decisions
10	Continue imaginal and in vivo exposures	Awareness of anger
11	Continue imaginal and in vivo exposures	Managing anger
12	Review and termination	

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What is Prolonged Exposure (PE)?

- Highly effective trauma-focused treatment for PTSD (Foa, Hembree, Rothbaum, & Rauch, 2019) with > 30 yrs of empirical research.
- A best practice intervention supported by clinical guidelines (e.g., VA/DoD, IOM, NIH, SAMHSA).
- **Key components:**
 - **In vivo exposure** - the patient directly confronts feared, but safe, situations or places in “real life.”
 - **Imaginal exposure** - the patient revisits the memory of the trauma repeatedly during session.



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Rationale for Exposure Therapy



- **Avoidance maintains PTSD symptoms.**
- Normalize attempts to avoid (e.g., not leaving house, not attending doctor's appointments, avoiding stores and crowds, drinking/smoking/using a lot).
- Successful in the short-term but maintains PTSD in the long-run.
- Avoiding by using substances can worsen PTSD symptoms (e.g., withdrawal can mimic hyperarousal symptoms; SUD affects mood, cognitions, sleep; decreases ability of executive functioning system and amplifies limbic system, impacts HPA stress system).

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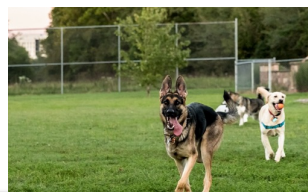
Purpose of In Vivo Exercises

- Foster the realization that the avoided situation is safe, disconfirm beliefs that the situation is dangerous (note nothing is 100% safe).
- Learn anxiety does not continue forever.
- Enhance sense of self-control and competence.
- Promote engagement in positive activities, hobbies, and relationships.
- ❖ Learn they can tolerate these situations AND do so without using substances - the anxiety goes down all on its own over time, without using (as do cravings).

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In Vivo Exposures & Substance Use

- Important not to use alcohol/drugs before, during, or immediately after (~2 hours) to ensure mastery and new learning takes place.
- Select in vivo situations that are safe with regard to substance use.



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What to approach and what to avoid?

- Explain why it is important to approach trauma cues and stay away from SUD cues?
 - Approaching trauma-related memories, thoughts, or situations that are relatively *safe*.
 - Avoiding substance-related cues or places that are likely *not safe for them, in this moment*, and could increase substance use/relapse.



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Safety Behaviors

- Safety behaviors are things that people do or say to temporarily reduce distress in situations.
- These behaviors maintain negative emotions and prevent corrective learning (that patient can handle the situation without the safety behavior).
- Whenever possible, identify and remove safety behaviors so they don't limit effectiveness of in vivos.
- Clearly address the issue of using alcohol or drugs before, during, or after the in vivo exercises.

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Safety Behaviors - Examples

- Leaving lights constantly on in the house
- Always sleeping with lights or TV on
- Keeping room doors consistently closed or open
- Sleeping with bedroom door locked
- Sleeping with a weapon under mattress or within reach
- Doing a head count (e.g., in a office waiting room)
- Checking for exits and points of escape (e.g., at a store)
- Backing up in a parking spot so escape will be easier
- Scanning the environment for threat, make sure there is no “suspicious person”
- Carrying a weapon (e.g., gun, pocketknife)
- Standing with back to the wall, sitting in a corner position
- Mental distraction (e.g., listening to music, saying a prayer or mantra, chewing gum, counting)
- Wearing sunglasses

- Using alcohol or drugs before in vivo.
- Having alcohol, drugs or pills in their car, pocket, or purse.

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What is Imaginal Exposure?

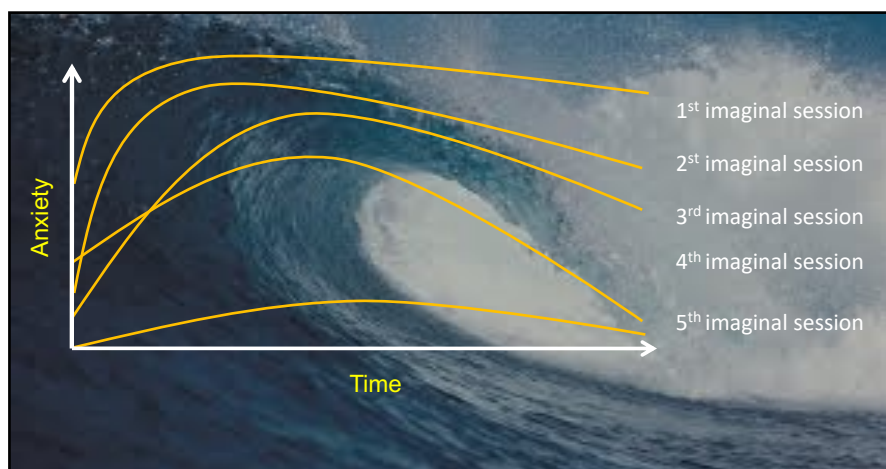
- Revisit the memory repeatedly (30-45 min) followed by 10-15 minutes of processing.
- Purpose of imaginal exposure:
 - ❖ Organize the trauma memory, make sense of it, and foster new perspectives.
 - ❖ Differentiate then vs. now (memory).
 - ❖ Gain personal mastery and confidence.
 - ❖ Habituate to anxiety and distressing feelings.
 - ❖ **Learn they can manage it without using substances.**



When conducting via telehealth, option is to have patient do a breathalyzer or alcohol test strip prior.

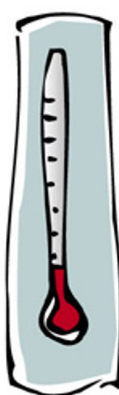
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The Wave of Anxiety & Craving



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SUDS: The Subjective Distress Thermometer



- 100 – Highest anxiety/distress that you have ever felt
- 90 – Extreme anxious/distressed
- 80 – Very anxious/distressed; can't concentrate. Physiological signs may be present.
- 70 – Quite anxious/distressed; interfering with functioning. Physiological signs may be present.
- 60 – Moderate to strong anxiety or distress
- 50 – Moderate anxiety/distress; uncomfortable, but can continue to function
- 40 – Mild to moderate anxiety or distress
- 30 – Mild anxiety/distress; no interference with functioning
- 20 – Minimal anxiety/distress
- 10 – Alert and awake; concentrating well
- 0 – No distress; totally relaxed

Craving Thermometer



- 100 – Strongest craving you have ever felt
- 90 – Extreme craving
- 80 – Very intense craving, persistent thoughts about using, physiological signs present
- 70 – Strong craving, interfering with functioning, unable to concentrate, may have physiological signs
- 60 – Moderate to strong craving
- 50 – Moderate craving, starting to interfere with functioning and concentration
- 40 – Mild to moderate craving
- 30 – Mild craving, thoughts about using, not interfering with functioning
- 20 – Minimal craving, fleeting thoughts about wanting to use
- 10 – Fleeting thoughts about alcohol or drugs
- 0 – No craving

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Craving and SUDS Decrease Over Time

Mean ratings of pre- and post-imaginal craving and distress by session.

Session	Craving		Distress	
	Pre-imaginal	Post-imaginal	Pre-imaginal	Post-imaginal
	M (SD)	M (SD)	M (SD)	M (SD)
4	18.11 (25.99)	23.31 (32.04)	52.05 (24.03)	58.13 (27.10)
5	22.08 (30.36)	24.57 (31.61)	41.35 (28.12)	50.22 (26.51)
6	16.05 (25.63)	19.05 (25.73)	41.03 (26.88)	42.44 (25.54)
7	8.91 (15.95)	10.03 (19.94)	35.30 (24.97)	38.64 (24.73)
8	8.44 (16.34)	12.37 (22.87)	28.59 (23.29)	36.72 (26.32)
9	10.21 (17.93)	13.75 (25.41)	33.83 (24.94)	35.70 (27.65)
10	8.62 (14.69)	6.96 (19.50)	21.38 (19.77)	28.28 (24.50)
11	7.78 (16.25)	7.67 (17.33)	25.37 (22.31)	27.78 (19.18)

Scale is 0 to 100
Cravings typically low



Dr. Amber Jarnecke

(Jarnecke, Allan, Badour, Flanagan, Killeen & Back, 2019; c.f. Lancaster et al., 2019)

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Substance Use
Component of COPE

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SUD Components

Primary goals:

- Normalize cravings.
- Identify triggers for cravings (both SUD-related and trauma-related triggers).
- Learn skills to effectively manage cravings.
- Recognize and modify high-risk thoughts about using alcohol/drugs.
- Learn effective coping skills (e.g., drug refusal skills).





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Craving Awareness

- A craving can be defined as a strong desire or urge to use alcohol or drugs.
- **Normal part of recovery.**
- Emphasize that cravings (like anxiety) are **time-limited**, like a wave that rises, peaks and comes down.
- On average, cravings last **15 min or less**.
- **Expect cravings to occur** so not caught off-guard or think treatment isn't working
- Be prepared to manage them in a healthy way.

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Craving Awareness cont'd

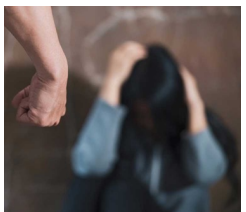




What if my patient denies ever having a craving?

- Review definition of craving with the patient.
- Note cravings can be thoughts ("That joint smells really good"), even fleeting ones like when they see an advertisement flash on TV or drive by a billboard.
- Ask about the last time they used (location, thoughts, emotions).
- Relate to something other than alcohol/drugs...

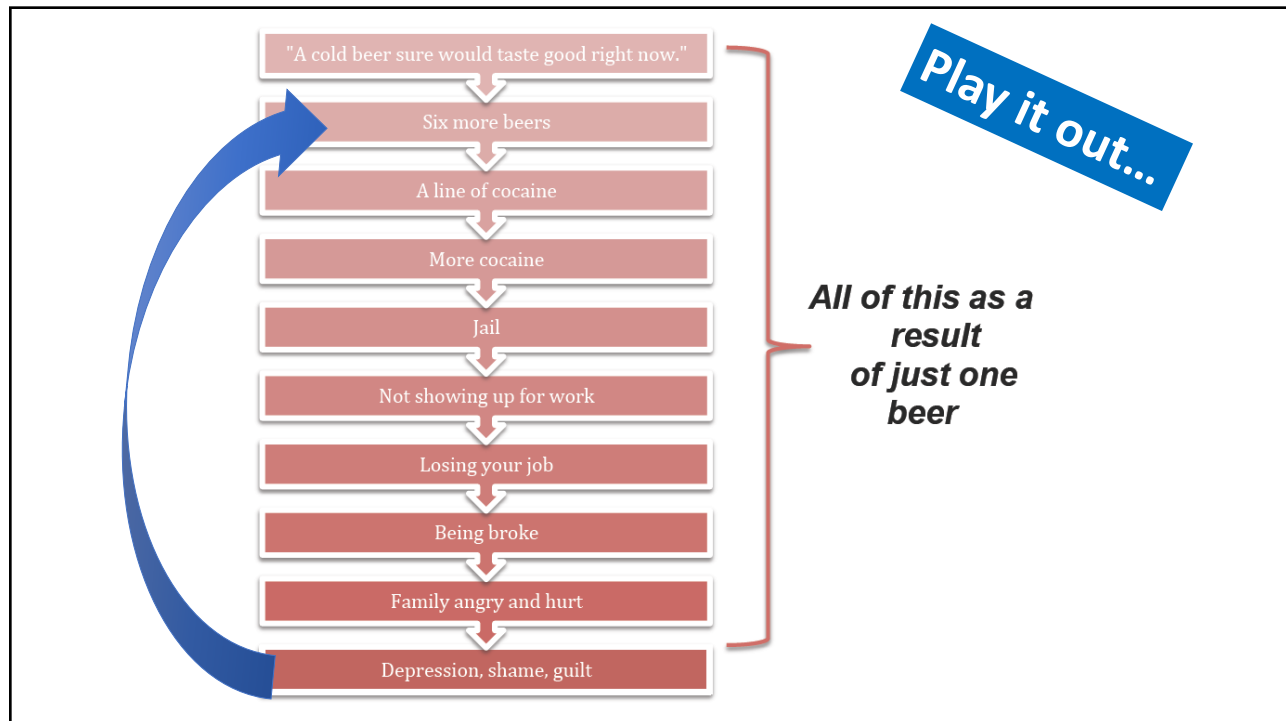
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Identify Triggers for Cravings

- 1. People, places, and things**
(e.g., being around alcohol/drugs, seeing others using, bars). Trauma cues can trigger cravings.
- 2. Negative emotions**
(e.g., loneliness, boredom, stress). Negative emotions associated with PTSD (e.g., anger, shame, guilt) can trigger cravings.
- 3. Thoughts**
(e.g., focusing on the pleasurable aspects of using without considering the negative aspects). Thoughts about the trauma can lead to cravings.
- 4. Physical symptoms**
(e.g., feeling on edge, restless, jumpy, muscle tension, physical pain, withdrawal symptoms).

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Managing Cravings cont'd

Reduce exposure to triggers

- What places do you need to stay away from?
- What people do you need to stay away from?
- Do you have alcohol or drugs in your house? If so, when and how will you dispose of it?
 - May get push back:
 - "But it's a special bottle – my uncle gave it to me."
 - "I want to be a good host when friends come over. Just because I stopped doesn't mean they have to."
- Where/how disposed of it? (e.g., buried in the backyard, wrapped securely in a towel in the trash can in the garage)?

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Identify High-Risk Thoughts

Escape:

"I just want to forget about everything."

"I don't want to feel anything, I just want to numb out."

Crisis:

"I *need* to use to get through this."

"Once I make it through this tough time, I will quit for good."

Feeling Uncomfortable When Not Using:

"I'm more fun to be around when I'm using."

"My kids likes me better when I'm high."

Testing Control:

"I bet I can go hang out with my buddies and not use."

"I can't avoid it forever, might as well test myself."

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Managing Thoughts about Using

Cognitive restructuring:

- Gradually become more aware of their thoughts
- Replace maladaptive thoughts with more adaptive thoughts.

Challenge your thoughts:

- It's a fact that you have thoughts, but not all thoughts are facts.
 - Do you really need a hit?
 - Will using really make you forget? (perhaps for a moment, but then what?)
 - Can you really use "just one"? (When you've tried that in the past, how did it go?)

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Establishing SUD Treatment Goals

Abstain or Significantly Reduce?

- Only ~50% of veterans with PTSD/SUD identify abstinence as treatment goal (Lozano et al., 2015).
- Goal of reducing use associated with younger age, employment, served in more recent conflicts, and fewer symptoms of SUD.
- Abstinence is the safest option and is encouraged, but not required.
- Normalize ambivalent feelings, emphasize it doesn't have to be forever.

Consider the following factors and discuss with the patient:

- *Degree of SUD: mild* (2-3 symptoms), **moderate** (4-5), **severe** (6+)
- *Negative consequences from use* (legal problems, incarceration, medical problems, job losses, relationship/child custody issues).
- *Previous SUD treatment outcomes* or attempts to cut back (e.g., longest time without using, history of seizures, detox or hospitalizations).
- *Family history* density or predisposition of SUD.

If goal is to significantly reduce use:

- Be very specific about reduction (amount, frequency).
- Aim for having some DAYS with no use (therapy appt, in vivo exercises).
- Revisit goals throughout therapy.

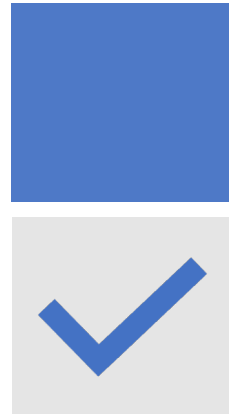
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Summary I

- COPE is a **trauma-focused treatment that includes PE** (both imaginal and in vivo exposure) to reduce PTSD symptoms.
- Exposure therapy components start early (session 3) and are integrated with evidence-based CBT for SUD.
- **SUD component** focuses on teaching skills to manage cravings, thoughts about using, triggers for use, and help patients reduce use/abstain.
- Abstinence is the safest option, but not required to receive treatment.
- **Psychoeducation and breathing retraining** are provided.
- COPE helps patients approach safe, but avoided, trauma related stimuli without using substances, providing new learning.

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Ongoing and Future Directions



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Ongoing Studies

- **Further improve outcomes with pharmacotherapy**
- **Biometric-driven, virtually guided in vivo exposures**
- COPE-A trial for adolescents in Australia
- Combine data from multiple trials to examine effectiveness of different PTSD/SUD treatments and mediators/moderators of outcome

**Project Harmony:
A Virtual Clinical Trial
(VCT)**

<https://www.projectharmonyvct.com/>

Dr. Julianne Flanagan



Dr. Katherine Mills



Dr. Antonio Morgan-Lopez



Dr. Denise Hien



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Augmentation of COPE with Oxytocin

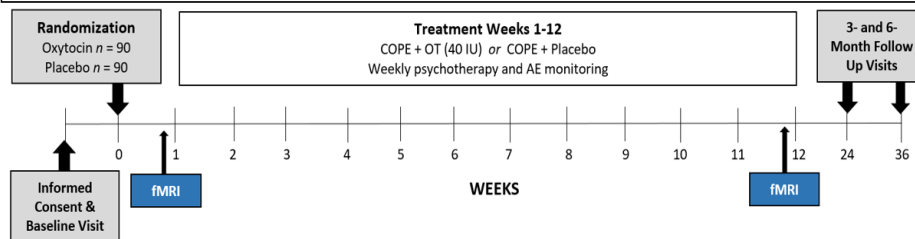
- Target N = 180 Veterans
- Current PTSD and Alcohol Use Disorders
- Receive oxytocin (40 IU) or placebo prior to each therapy session
- Hypothalamic 9 amino acid neuropeptide
- Self-administered intranasally (observed)



Dr. Julianne Flanagan



Study design overview. Participants randomized to 12 weeks of COPE plus oxytocin (40 IU) or placebo. Weekly visits during weeks 1-12. Follow-up visits at 3- and 6-months post-treatment. Neuroimaging scans at pre- and post-treatment.



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> Contemp Clin Trials Commun. 2022 May 27;28:100940. doi: 10.1016/j.conctc.2022.100940. eCollection 2022 Aug.

Enhancing Prolonged Exposure therapy for PTSD using physiological biomarker-driven technology

Sudie E Back^{1,2}, Ron Acierno^{2,3}, Tanya C Saraiya¹, Bill Harley⁴, Bethany Wangelin^{1,2}, Amber M Jarnecke¹, Lisa M McTeague^{1,2}, Delisa G Brown¹, Elizabeth Santa Ana^{1,2}, Alex O Rothbaum¹, Robert J Adams^{1,4}



Dr. Delisa Brown, Dr. Amber Jarnecke, Mr. Bill Harley, Dr. Robert Adams, Mr. Will Brown, Dr. Sudie Back, Dr. Tanya Saraiya

- In vivos are key treatment component, but typically “invisible” to the clinician.
- Digital device allows clinician to virtually accompany patients during in vivos.
- Clinician dashboard shows real-time streaming of HR, GSR, and distress ratings – indices of engagement that are used in the moment to optimize the exposure.
- May enhance accountability, effectiveness, and retention.



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Summary II

- **Integrated, trauma-focused treatment is an effective option to effectively treat PTSD and SUD.**
- Research among men and women, civilians and Veterans, patients with multiple SUDs and traumas demonstrates COPE is feasible, safe (substance use decreases) and efficacious.
- **Having a current SUD should not be a barrier to receiving evidence-based, trauma-focused treatment.**
- More research is needed to address gaps, such as further improving outcomes with augmentation (e.g., pharmacotherapy, technology, device), reducing attrition, group and inpatient/residential settings, culturally tailored interventions, and prevention of PTSD/SUD.



(Hamblen et al., 2019; Peirce et al., 2020; Roberts et al., 2015; Simpson et al., 2017)

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thank you!



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