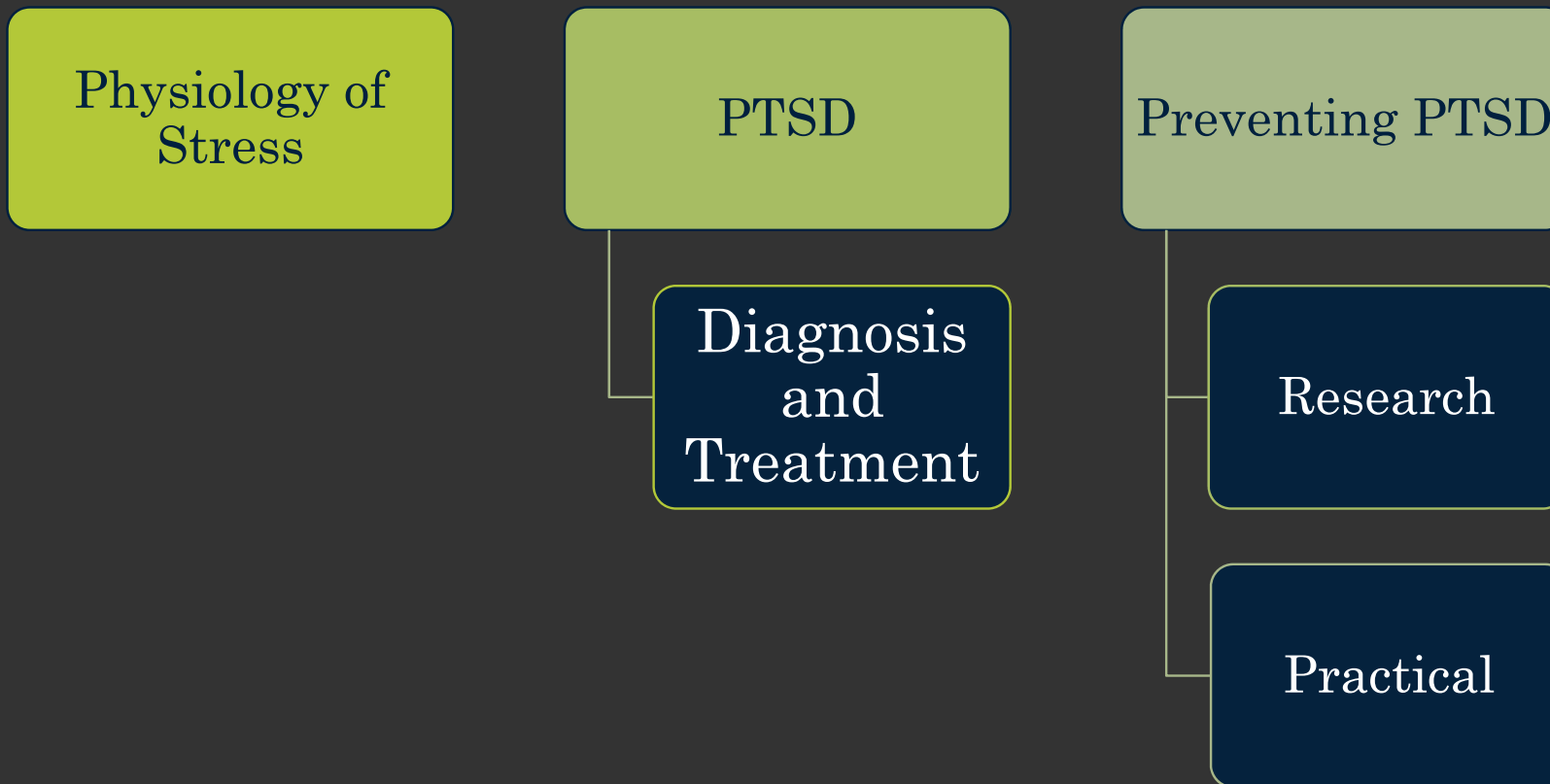


PTSD and Prevention Strategies for First Responders

Biomedical and Psychosocial Components

Agenda

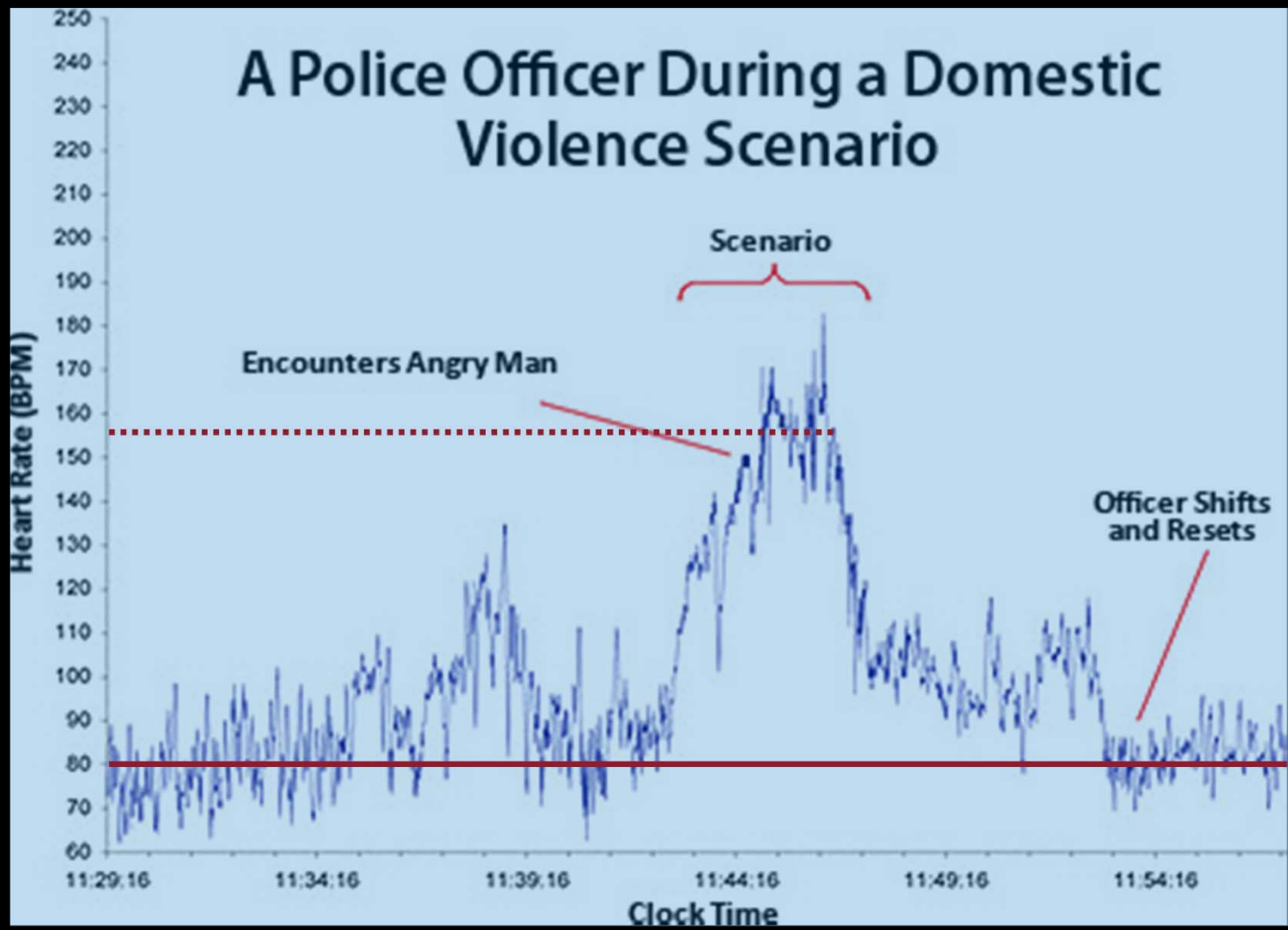


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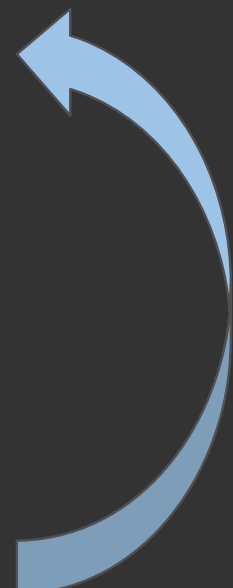
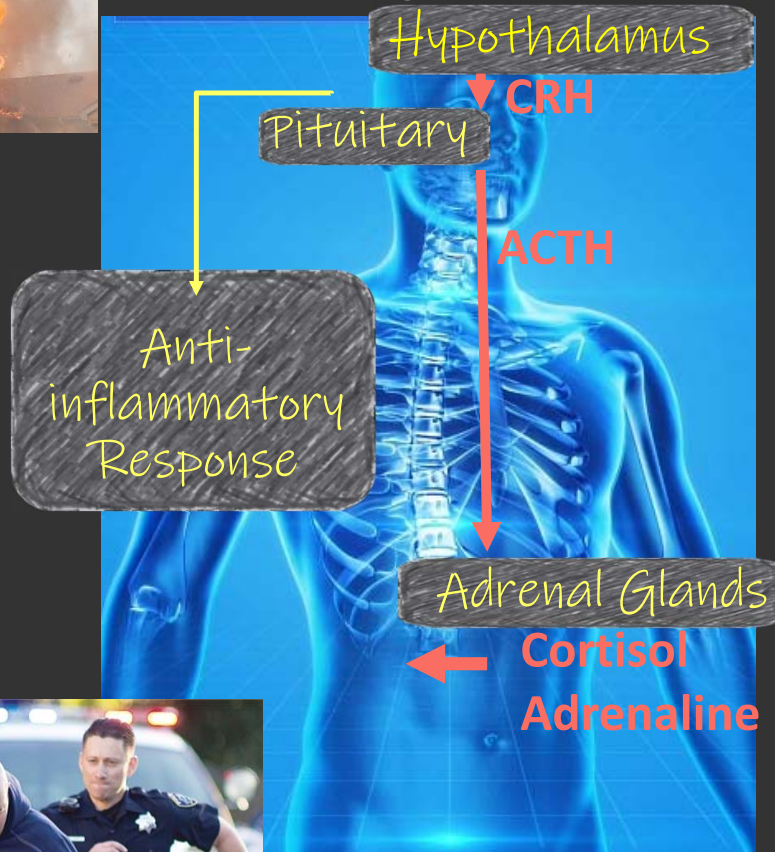


TULSA
POLICE



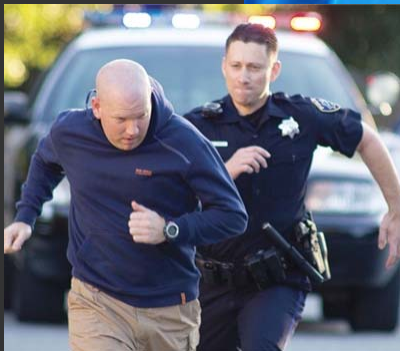


Hypothalamus responds to level of cortisol
(self-regulation)



HPA Axis

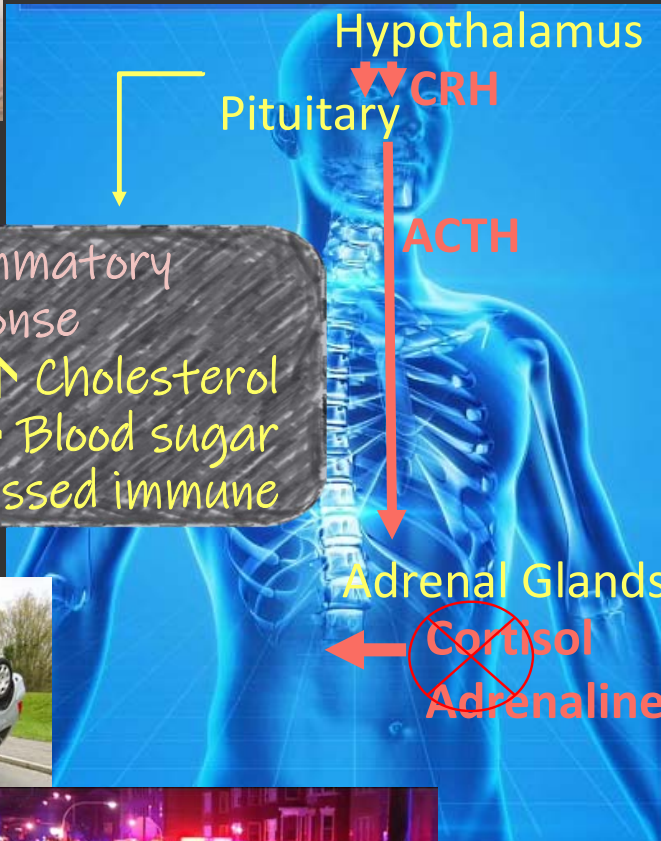
(stress response system)



↑ Heart rate, respiration, motivation
Helps in short-term emergency

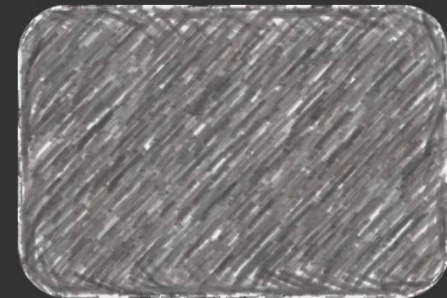
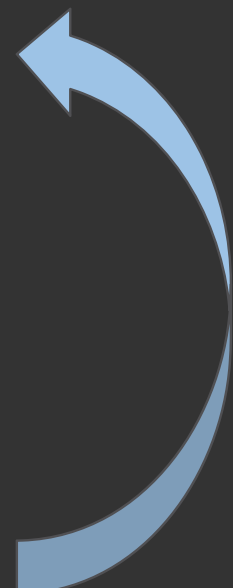


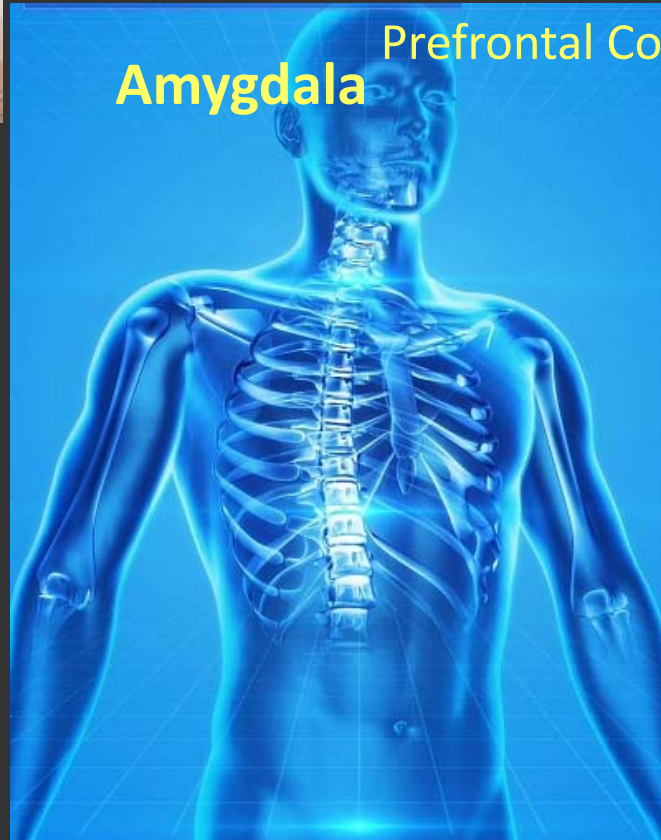
Cortisol floods receptors



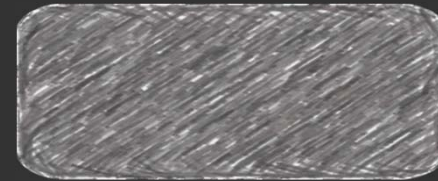
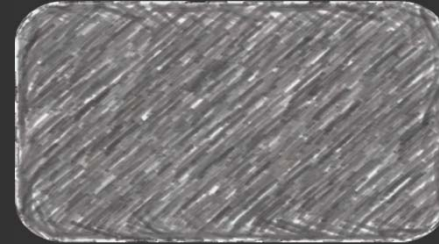
Pro-inflammatory Response

- ↑ Cholesterol
- ↑ Blood sugar
- ↓ Suppressed immune





Amygdala Prefrontal Cortex



Reason Suffers

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PTSD

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Vxp p du| #D Q rw#irufg ldj qrvlv



Death, injury, violence



PTSD

Criterion B: **Intrusive symptoms**

- Upsetting memories
- Nightmares
- Flashbacks

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AM



PTSD

Criterion C: Avoidance

- Thoughts/feelings
- External reminders

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PTSD

10:08
AM



Criterion D: Negative thoughts and mood (two required)

- Can't recall key part of trauma
- Overly negative thoughts
- Blame
- Negative affect
- Decreased interest in activities
- Feeling isolated
- Difficulty experiencing positive feelings

PTSD



Criterion E: changes in arousal (two required)

- Irritability or aggression
- Risky or destructive behavior
- Hypervigilance
- Heightened startle reaction
- Difficulty concentrating
- Difficulty sleeping

PTSD

Criterion F: duration

Symptoms last more than 1 month



Criterion G: impairment

Social, occupational...



Criterion H: exclusion

Symptoms not due to drugs or other illness.





PTSD is
all in your
head

PTSD Symptom Study

Michigan

- 55 officers
- 38 agencies throughout state



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Symptoms reported following traumatic events

- 38% nightmares
- 75% mind re-enactments
- 52% sleeping difficulties
- 28% guilt over outcome
- 51% attempts to avoid memory

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AM



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PTSD Prevalence

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Treatment



Cognitive Behavioral Therapy (CBT)

- Gradual/prolonged exposure



Cognitive Processing Therapy (CPT)

- Challenge unhelpful/distorted thoughts

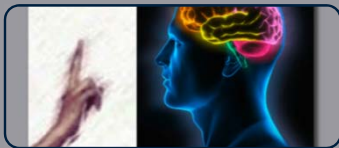
narrative.

Narrative Exposure Therapy

- Create revised narrative to put trauma in context



Mindfulness Based Stress Reduction (MBSR)



Eye Movement Desensitization Response (EMDR)

- Pairing memories with eye movements

10:08
AM



Is everyone impacted equally by trauma?

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- Ability to adapt in the face of trauma
- To reset HPA-Axis after stress

Genetic Component

- 30%
- Some individuals predisposed to be resilient





Developmental Components

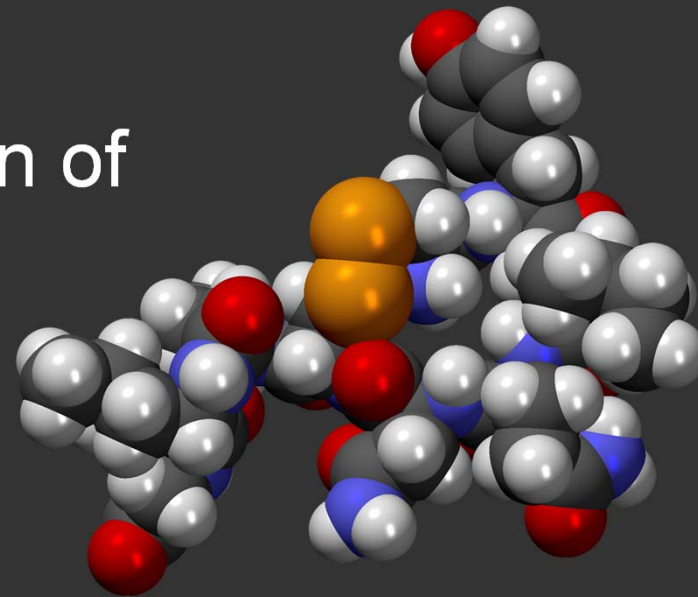
1. Early adversity (e.g., abuse)
2. Family *stability* in face of trauma



HPA-axis programming

Oxytocin

- Neuropeptide that promotes social attachment
- Involved in attenuation of the fear response





Can we build
resilience and
prevent PTSD





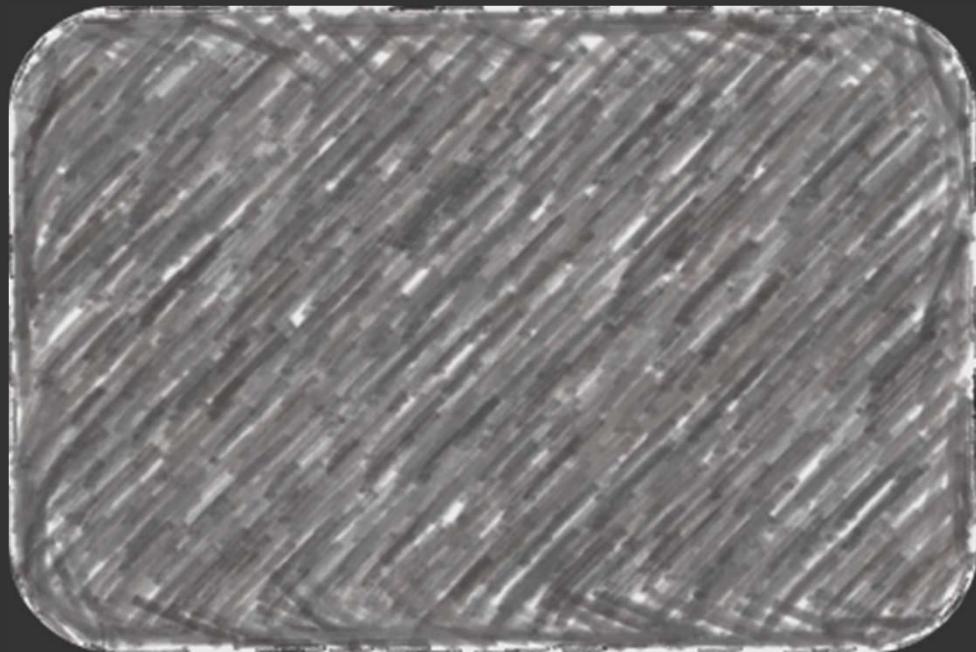
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Stress Inoculation Training

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[Mil Med](#). 2016 Sep;181(9):1151-60. doi: 10.7205/MILMED-D-15-00192.

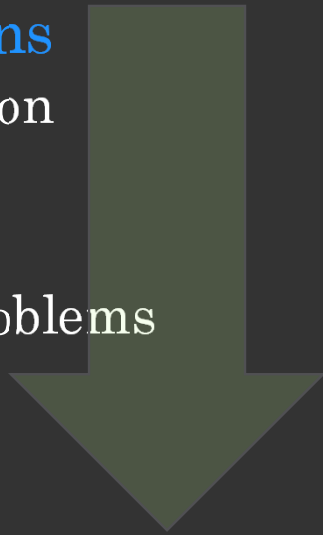
Toward Preventing Post-Traumatic Stress Disorder: Development and Testing of a Pilot Predeployment Stress Inoculation Training Program.

[Hourani L](#)¹, [Tueller S](#)¹, [Kizakevich P](#)¹, [Lewis G](#)¹, [Strange L](#)¹, [Weimer B](#)¹, [Bryant S](#)¹, [Bishop E](#)¹, [Hubal R](#)¹, [Spira J](#)².

Mindfulness Based Resilience Training (MBRT) for Police Changes in Tx group vs control:

• Reductions

- Aggression
- Stress
- Burnout
- Sleep problems



• Increases

- Flexible thinking
- Non reactivity



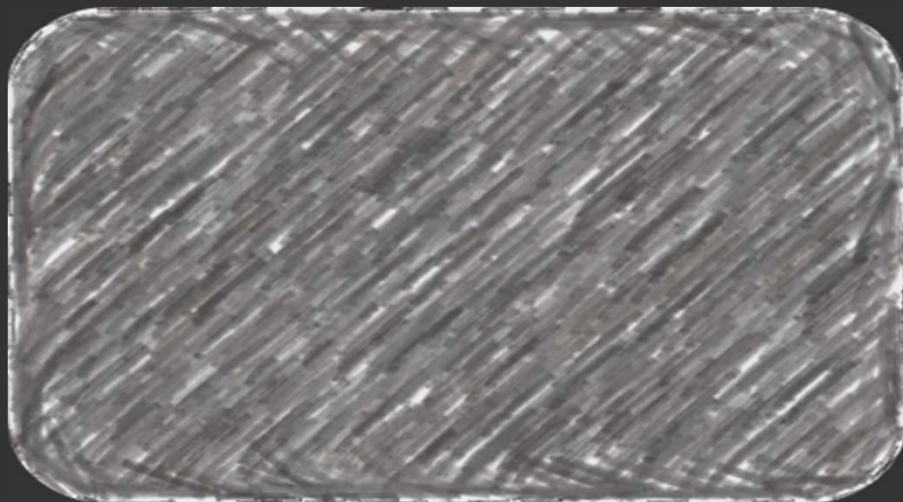
N=61

Preventing PTSD and Depression and Reducing Health Care Costs in the Military: A Call for Resilience Among Service Members.

Vyas, KJ et al, 2016. *Military Medicine* 181 (10):1240-1247

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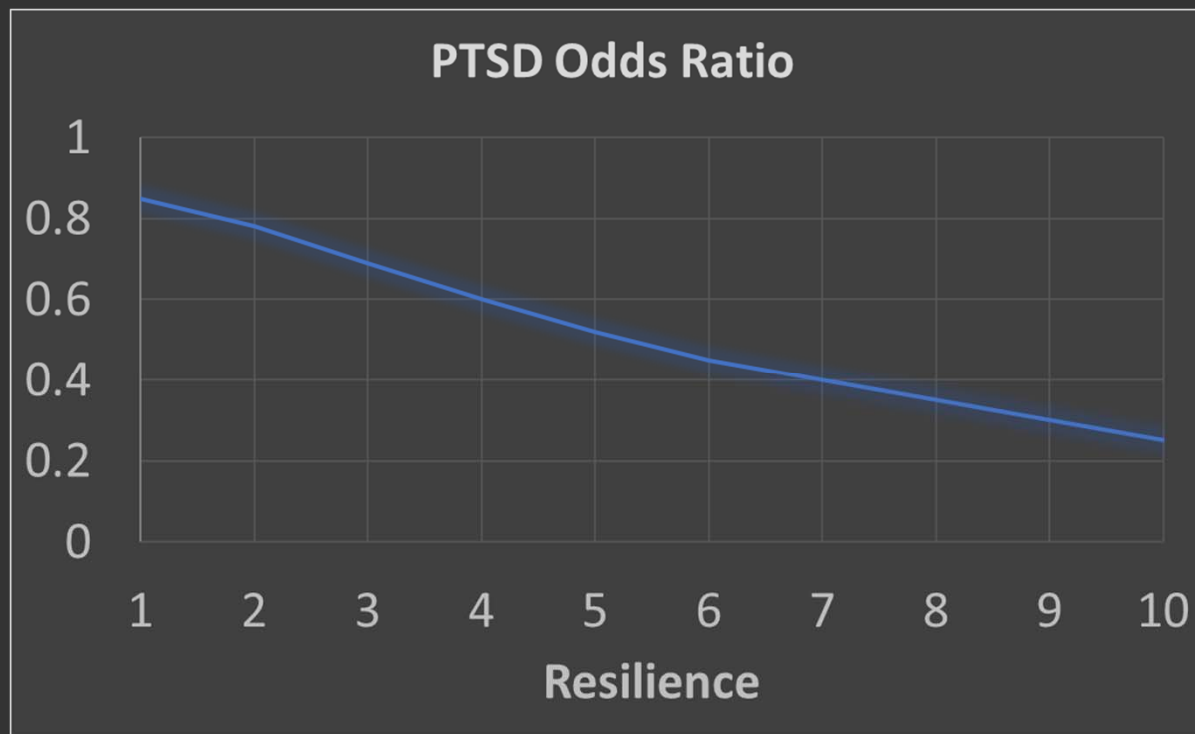


Preventing PTSD and Depression and Reducing Health Care Costs in the Military: A Call for Resilience Among Service Members.

Vyas, KJ et al, 2016. *Military Medicine* 181 (10):1240-1247

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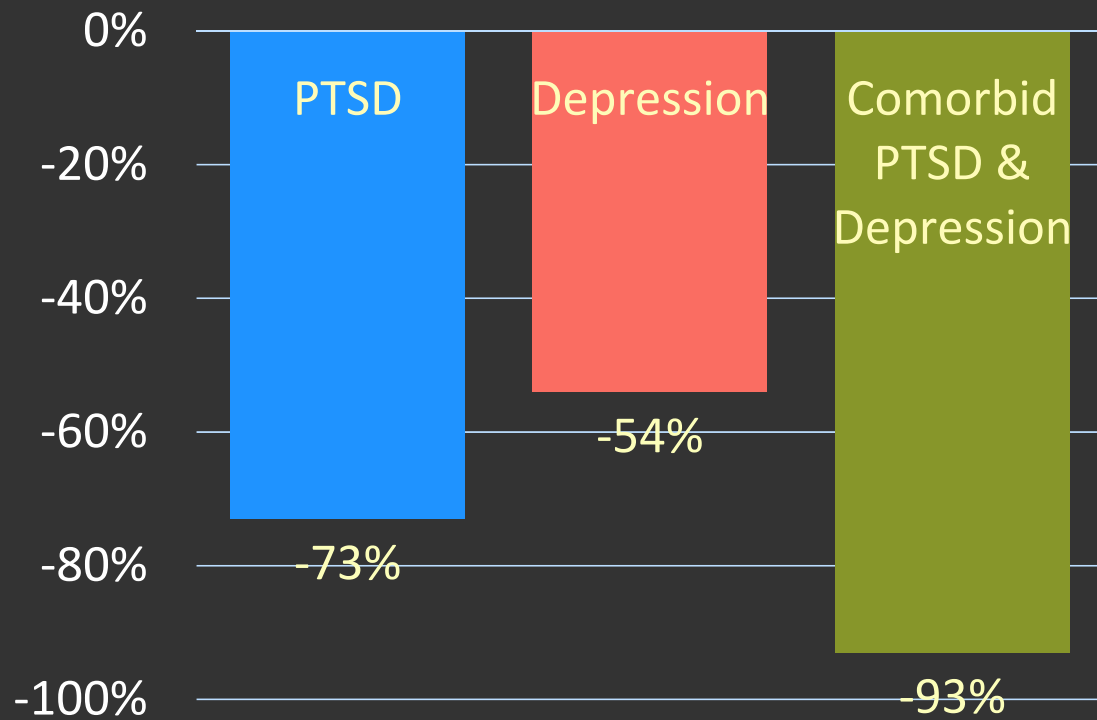


Preventing PTSD and Depression and Reducing Health Care Costs in the Military: A Call for Resilience Among Service Members.

Vyas, KJ et al, 2016. *Military Medicine* 181 (10):1240-1247

Increasing resilience by 20% would reduce →

Save over \$1 Billion



Scenarios



1. Building Search

- Silent alarm; dim warehouse
- Suspects reaches into jacket for identification

2. High-speed Chase

- Suspects jumps from vehicle
- Points gun at officers' car

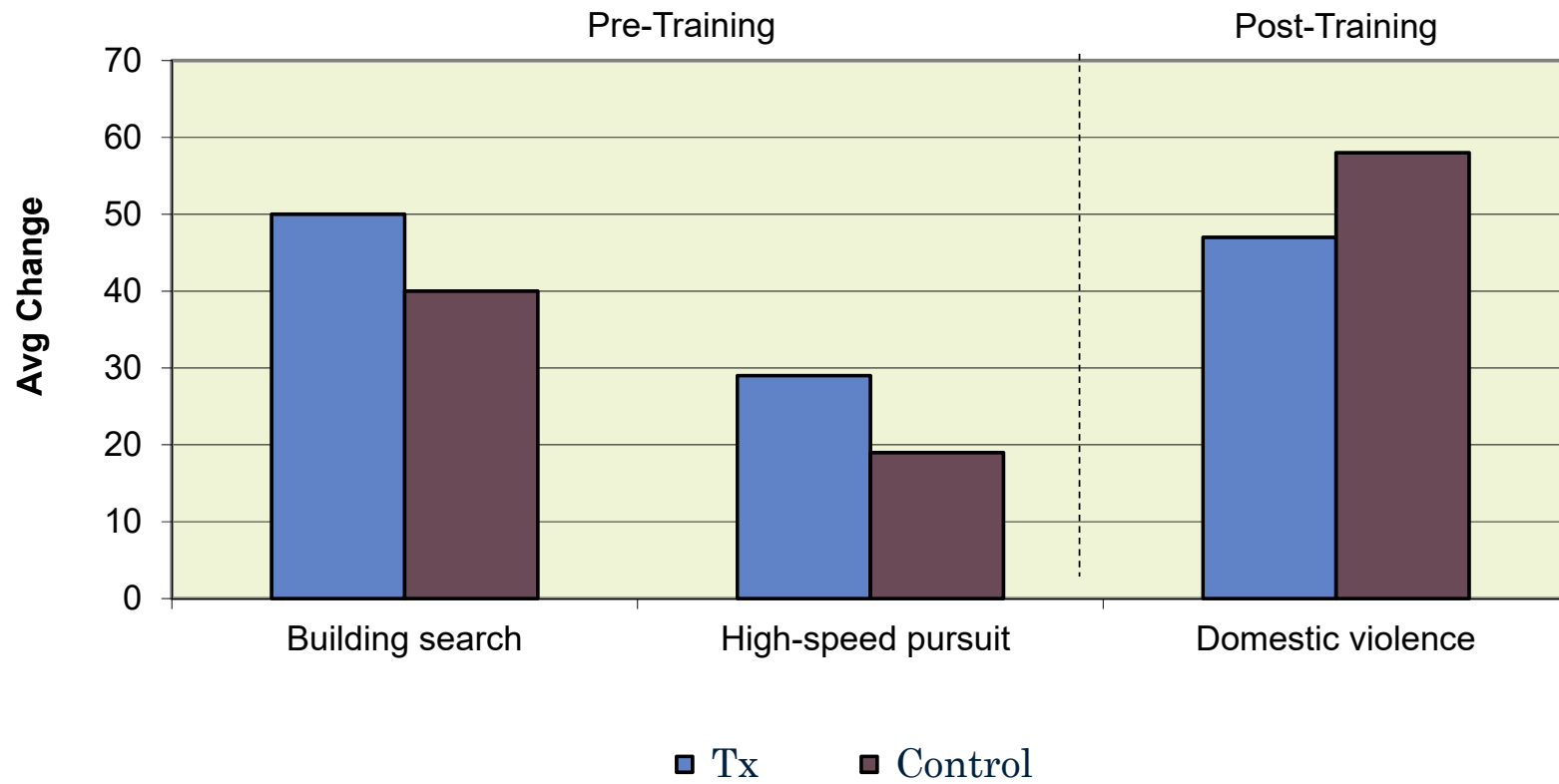


3. Domestic Violence

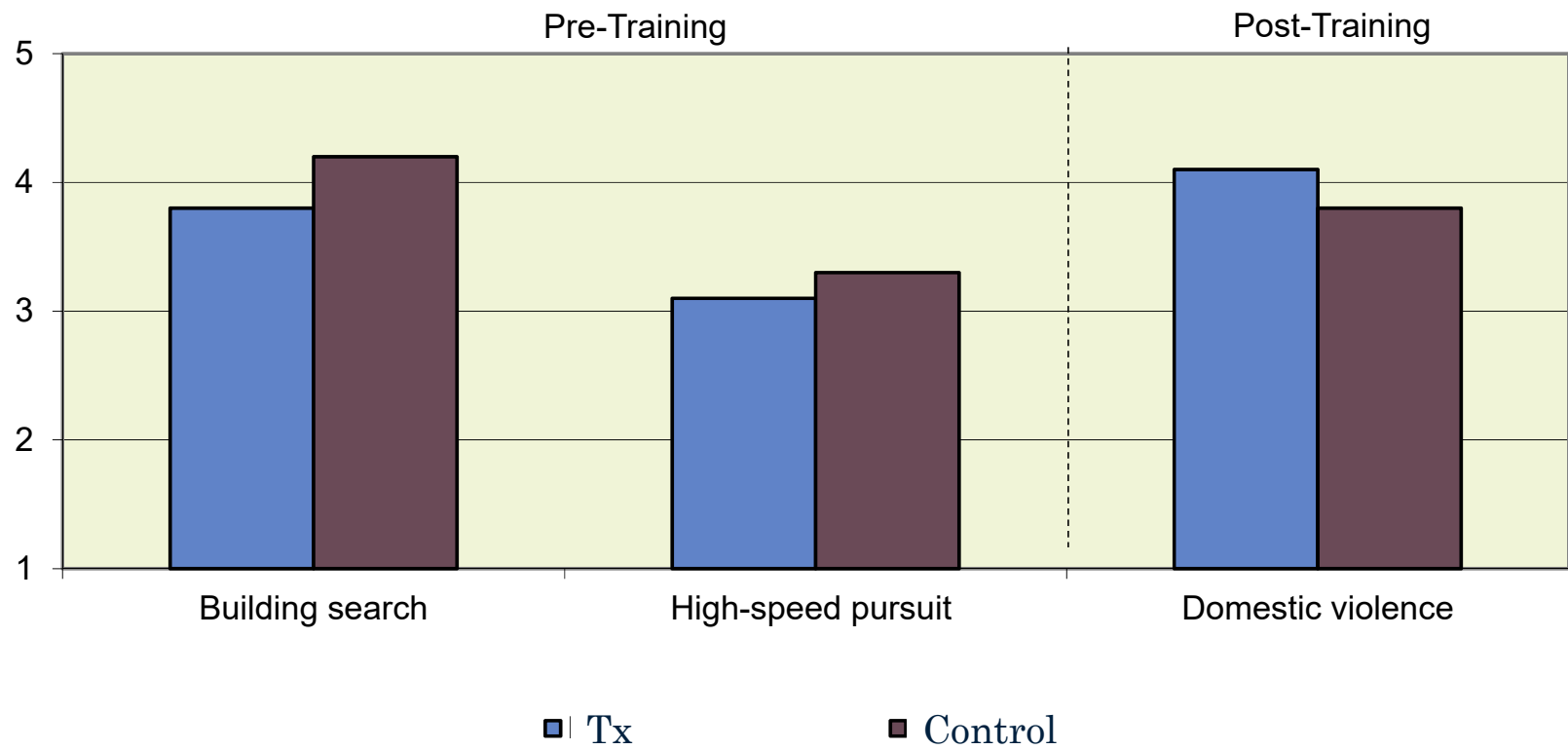
- Woman crying with blood on her
- Boy friend pulls weapon and points it at wife
- Suspects then turns gun at officers and fires



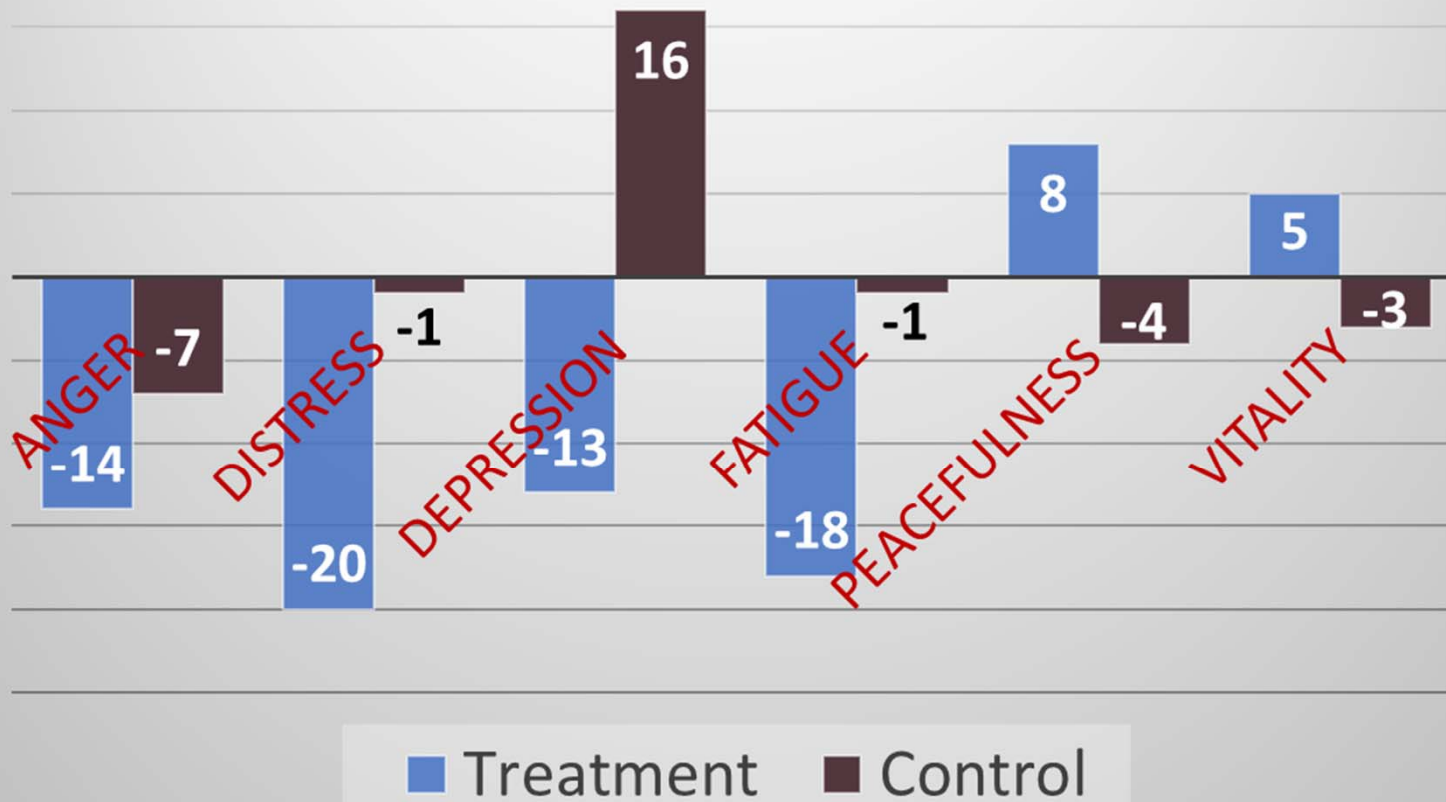
Systolic Blood Pressure



Ability to Maintain Focus during the Scenerio



Personal & Organizational Quality Assessment



How do we build resilience?

social support

self-regulatory skills

physical exercise

cognitive reappraisal

meaning making

purpose in life

Altruism/
compassion

gratitude

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Cognitive Reappraisal

- Identify, challenge and replace stressful thought patterns and beliefs with more accurate and less rigid thinking.



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Meaning Making

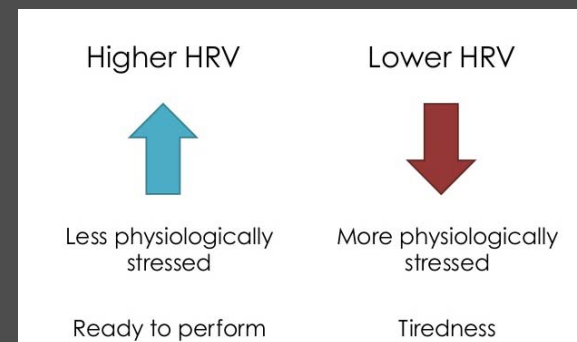
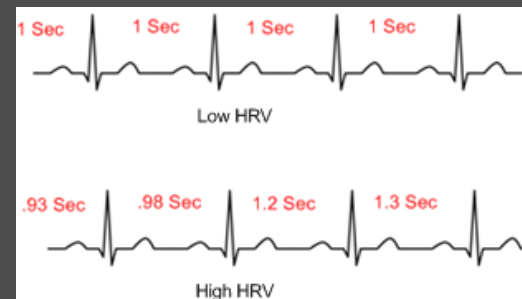
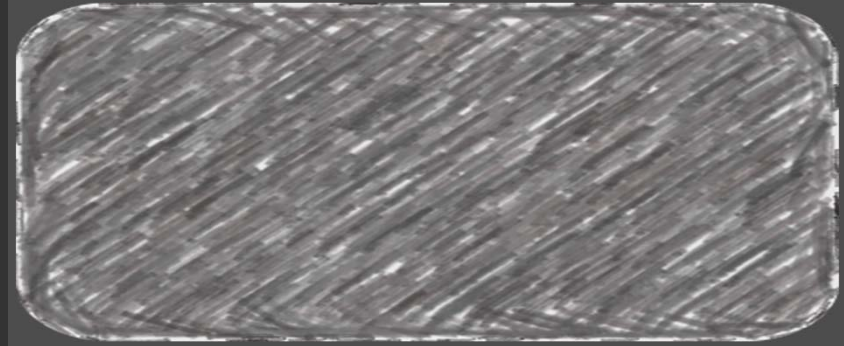
- Traumatic events disrupt sense of meaning.
- Meaning making restores congruency between life and appraisals of traumatic events.



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Self-regulatory Skills

- Mindfulness
- Breathing
- Progressive relaxation
- Yoga



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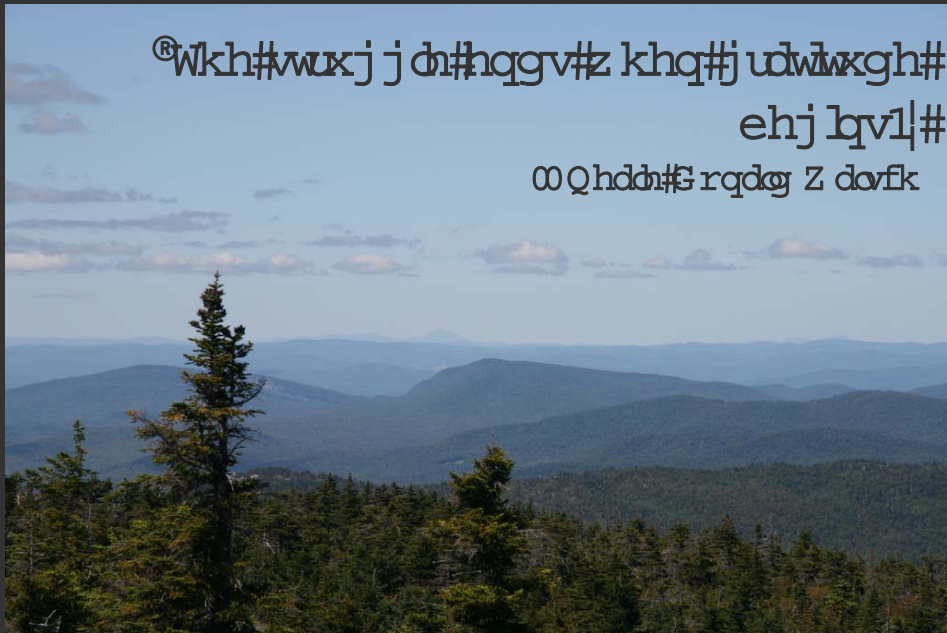
Compassion/Altruism

- Caring and giving to others boosts resilience



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AM

Gratitude



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Prevention reduces claims

- Individual counseling
 - Financial
 - Legal
 - Family
 - Work
 - Mental Health
 - Substance
- Critical incident debriefings





Outreach

- Department Visits
- Ride-alongs
- Orientations

18 counselors
177 hours onsite
50 departments

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Counselor Network



Peer Training

- Periodic regional peer support
- Peer/Counselor
- Outreach and culture change
- Ongoing supervision & support



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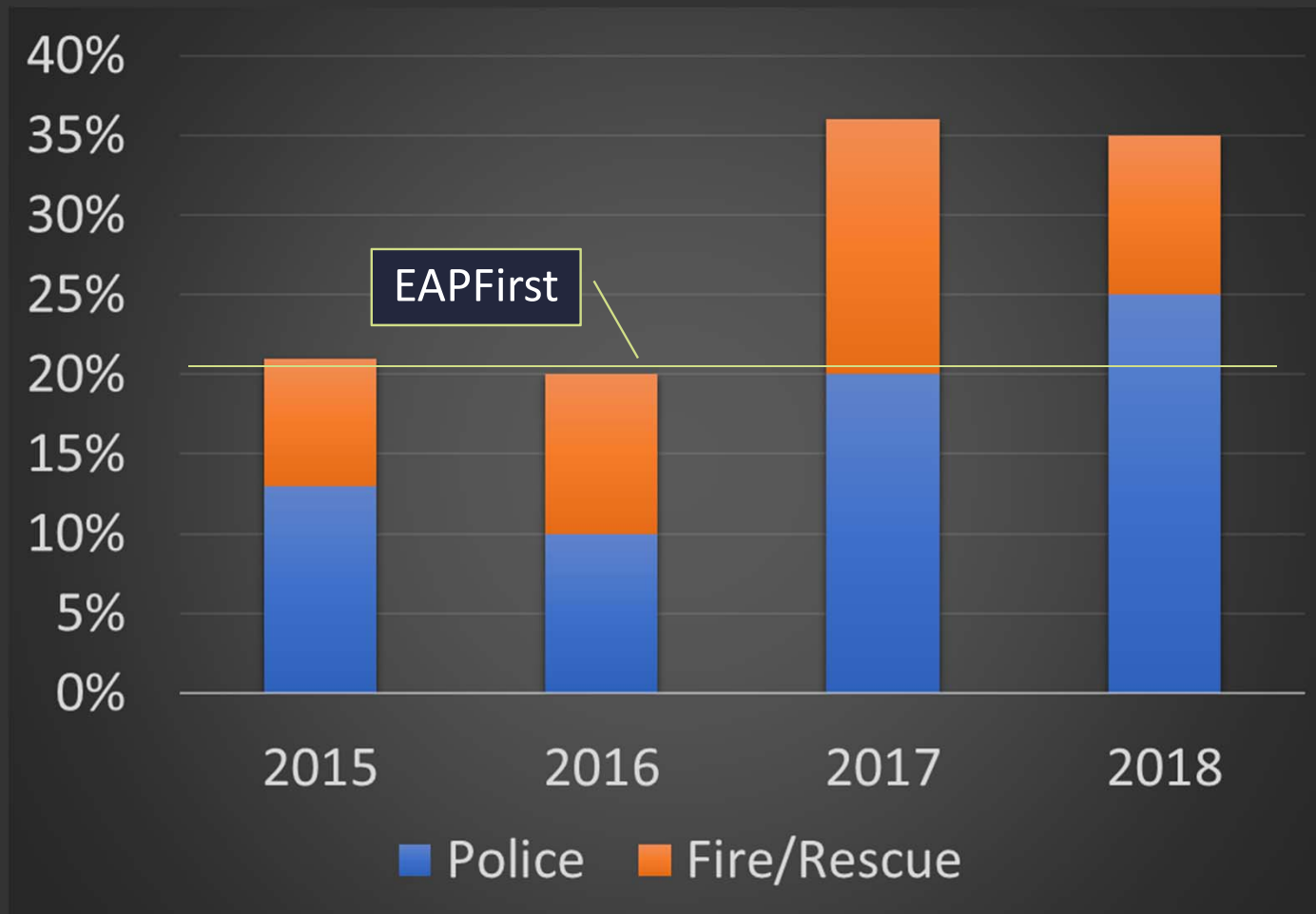
Resilience Trainings

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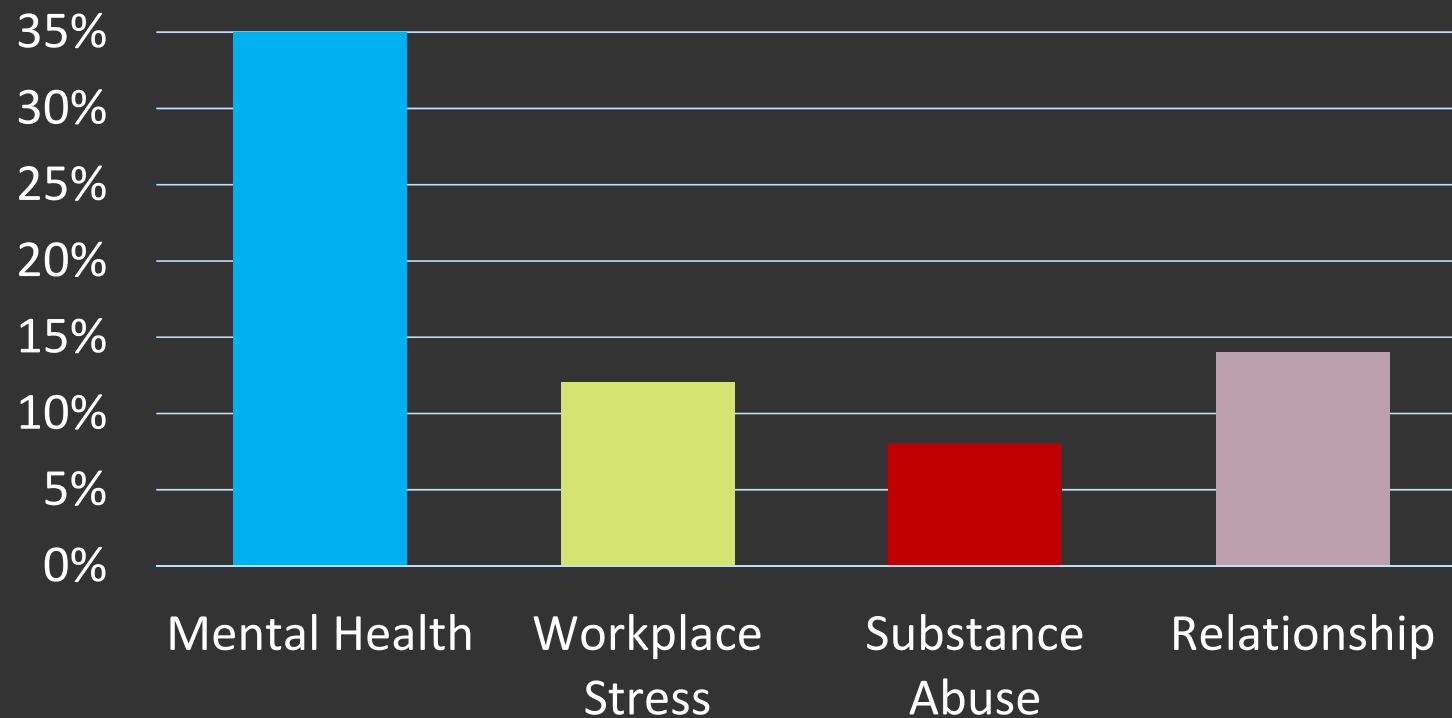
- Relaxation paired with progressive exposure
- HRV
- Video scenarios



Police/Fire as % of Municipal Employees Seeking EAP

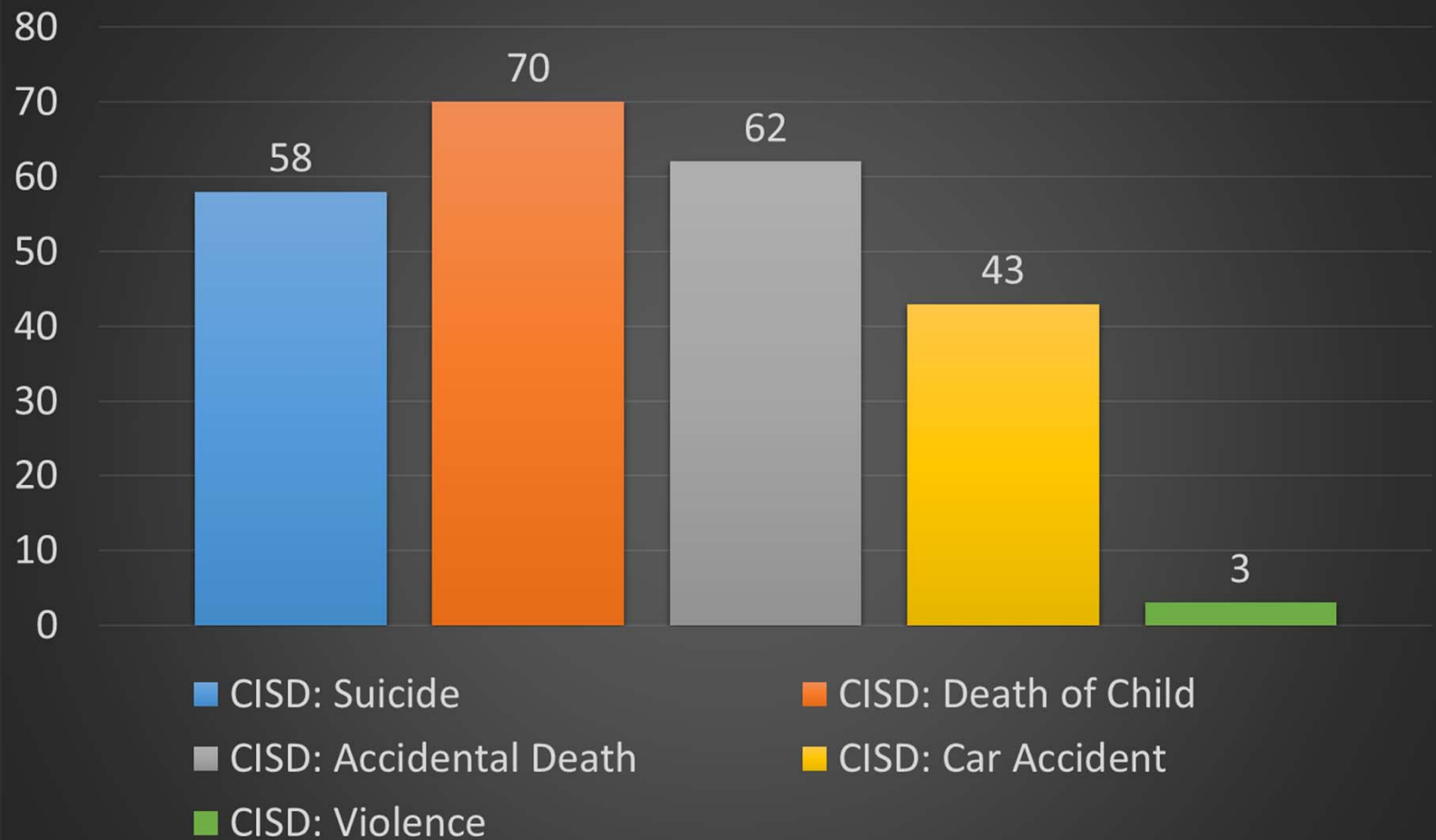


Primary Issues individual Counseling

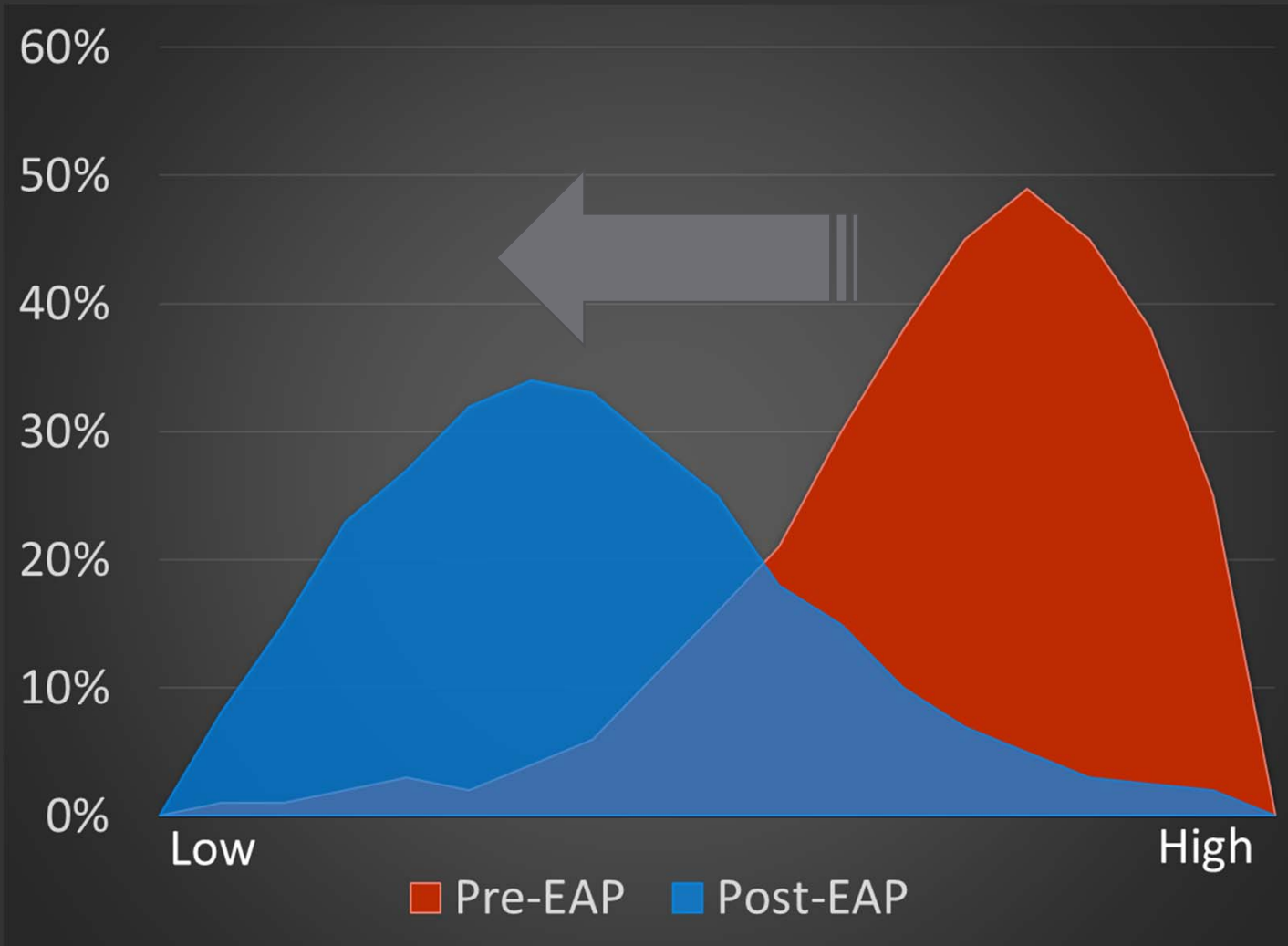


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Critical Incident Debriefings (CY 2018)



Stress before & after EAP

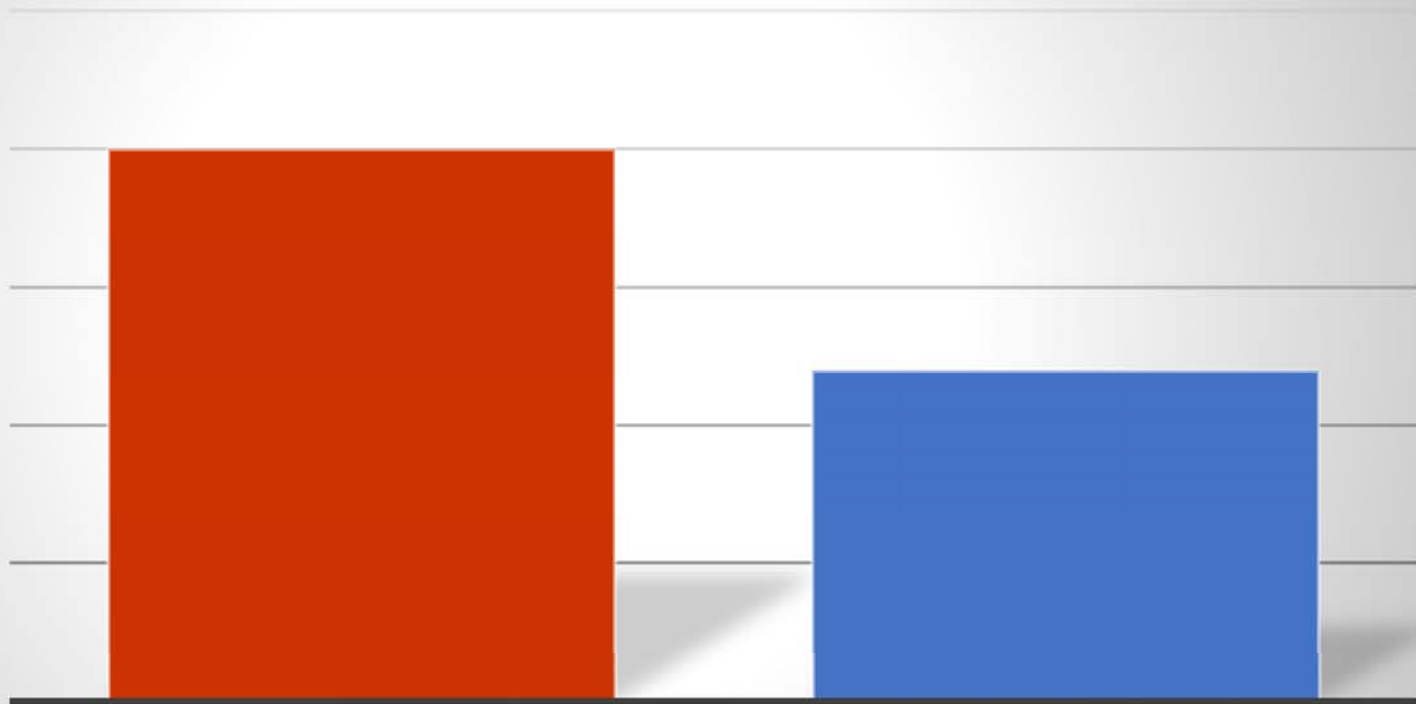


Impact of Problem on Work

Considerable

Moderate

Limited



IMPACT ON WORK BEFORE EAP

IMPACT ON WORK AFTER EAP



Behavioral Health Screening and Brief Treatment (BST)



Engagement



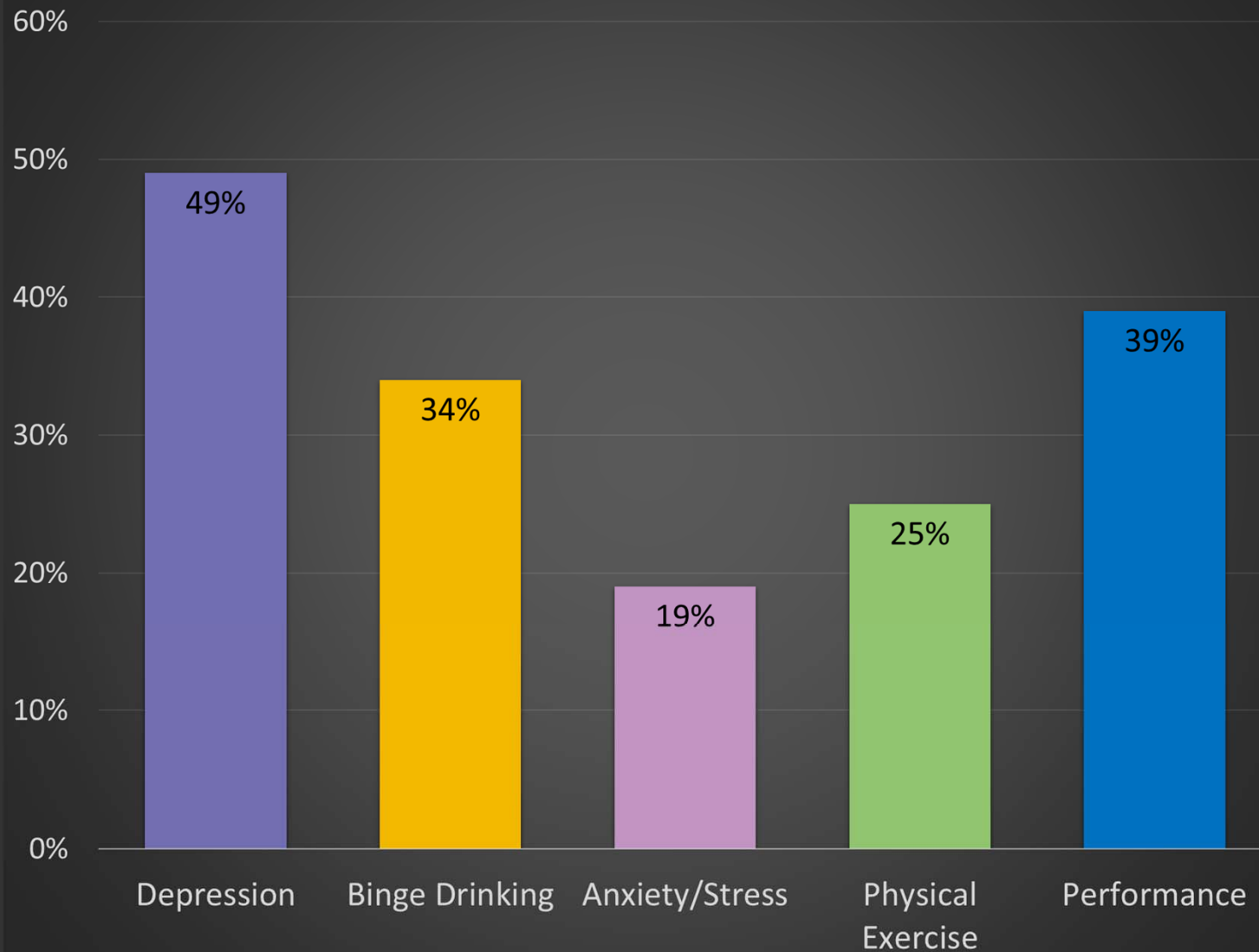
11
October
2019

Duration

- Depends on issue
- Range 1-12 sessions
- Average:
 - 4 sessions
 - 40 minutes each



Percent Improvement After Counseling



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Cost Implications

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Outcome	Estimated Savings per Case	Investment	Return on Investment
Reduced Future Healthcare Costs	\$1,492	\$400	~ 4 : 1
Restored Lost Productive Time at Work Costs	\$2,902	\$400	~ 6:1

Summary

Repeated exposure to trauma dysregulates HPA

Can lead to PTSD

Build resilience & reduce stress to prevent PTSD

Keys to a
successful
program

Robust EAP/
Counseling
Program

Outreach

Individual Counseling

Critical Incident Debriefing

Peer Support training

Resilience Training

Behavioral Screening and Intervention

Contact



Steve Dickens
Director, Invest EAP Centers for Wellbeing

Phone: 802-863-7509

E-mail: steved@investeap.org

Link to resources: http://bit.ly/investeap_resilience

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