

- From Combat to Mass Shootings and a Building Collapse:
Reinventing the Treatment of PTSD
- ***Presenter: Deborah Beidel, PhD, ABPP***

Scan this QR code to sign in for this session OR use the sign in sheet at the door.



From Combat to Mass Shootings and a Building Collapse: Reinventing the Treatment of PTSD

Deborah C. Beidel,
Ph.D., ABPP
Trustee Chair and
Pegasus Professor
UCF RESTORES
University of Central
Florida



Acknowledgements and Disclosure

Some of the research in this presentation was supported in part by the U.S. Army Medical Research & Materiel Command-Military Operational Medicine Research Program (USAMRMC-MOMRP; contract W81XWH-11-2-0038). The study had both MRCM HRPO and local IRB approval and does not necessarily reflect the policy/position of the government.

The funding source had no involvement with the design, collection, analysis or interpretation of the data, or the construction of this presentation.

The research was also supported in part by Department of Justice Antiterrorism and Emergency Assistance Program (2017-RF-GX-0003).

The author has no conflicts of interest to disclose with respect to this research.

Disclaimer



This presentation will discuss traumatic events that occur during the careers of veterans and first responders.



Care has been taken to eliminate graphic details that are not directly relevant to the topic under discussion

The Challenge of Combat-Related PTSD

- Prevalence is 9%; lifetime prevalence is 30%
- From 2004-2009
 - VA spent \$3.7 billion for all veterans health care
 - \$2.2 billion (60%) went for PTSD and TBI – but only 28% of vets getting care
 - Patients with PTSD, TBI or both had health care costs 4-6 times as high as patients without those conditions.



What about veterans who make it past the barriers?

- Statistically significant reduction in symptoms but 50-66% still meet diagnostic criteria after a full course of treatment
- High rates of treatment attrition
 - 28% - 40% drop out - even from the most efficacious treatments
- Ongoing crisis in PTSD care
 - There is considerable room for improving treatment efficacy, “particularly for interventions that enhance treatment engagement and retention” (Hoge et al., 2016)
- Do we need **different** treatments?
- Or should we be delivering established treatments **differently**?

Brief History - Trauma Management Therapy for OIF/OEF Veterans

- Oct, 2003: Awarded a grant (NIMH MH063721) to treat Vietnam veterans with chronic PTSD
- Jan, 2011: Awarded a grant (W81XWH-11-2-0038) from the Military Operational Medicine Research Program (MOMRP) USAMRMC to develop and evaluate a new treatment for combat-related PTSD in OIF/OEF veterans.
- Charged with developing a “faster” treatment for treating active-duty personnel with combat-related PTSD

From Vietnam to Iraq and Afghanistan: Doing Treatment Differently

- Incorporating the use of virtual reality to enhance exposure therapy.
- Adding a simultaneous group treatment component to address depression, guilt, anger, sleep and social maladjustment.
- Providing treatment daily (several sessions per day) for an intensive period of time.

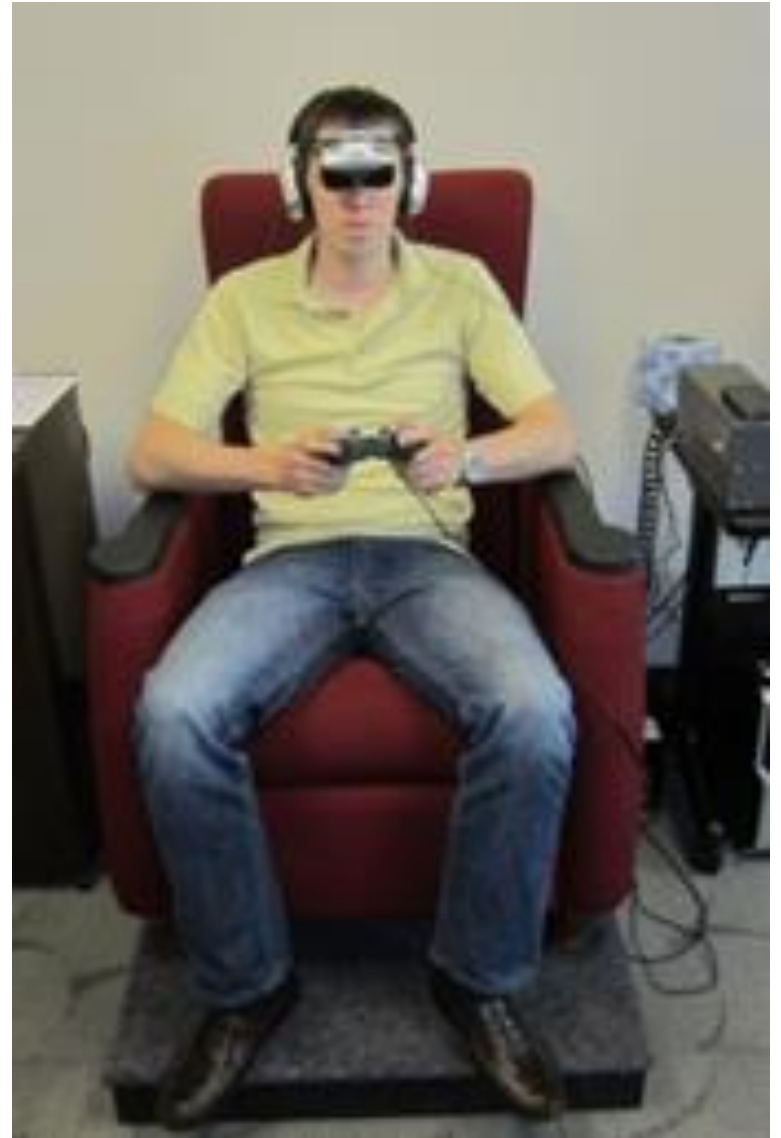
Challenges for Exposure Therapy for OEF/OIF Veterans

- Typically, exposure therapy is conducted using either imaginal or in vivo methods.
- How do you recreate this?



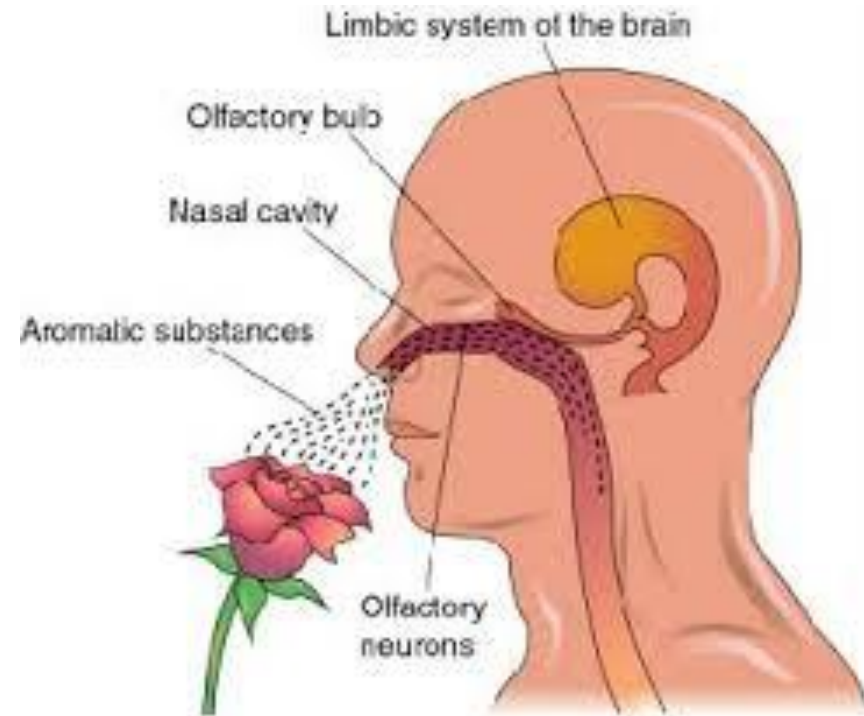
Doing Treatment Differently: Virtual Reality (VR) to Augment EXP

- Allows presentation of relevant cues, overcoming reluctance to imagine these events
- Overcomes the inability to engage in imagery of sufficient detail *and* affective magnitude



Why Olfaction?

- Olfactory cues, paired with aversive stimuli, produce conditioned fearful behavior to both the odor and the context (Kroon et al., 2008).
- Patients with PTSD associate odors with traumatic events and describe specific olfactory cues as primary precipitants of flashbacks (Kline & Rausch, 1985; Vermetten & Bremner, 2003).
- This is particularly so for veterans of OIF/OEF who report memories of the novel smell of the desert, smells from IEDs, garbage and related smells such as Middle Eastern spices



Virtual Iraq



Doing Treatment Differently- Trauma Management Therapy

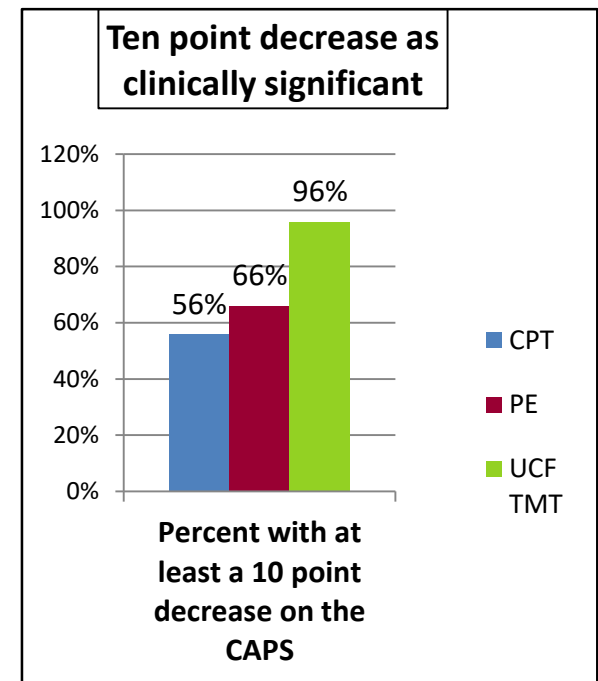
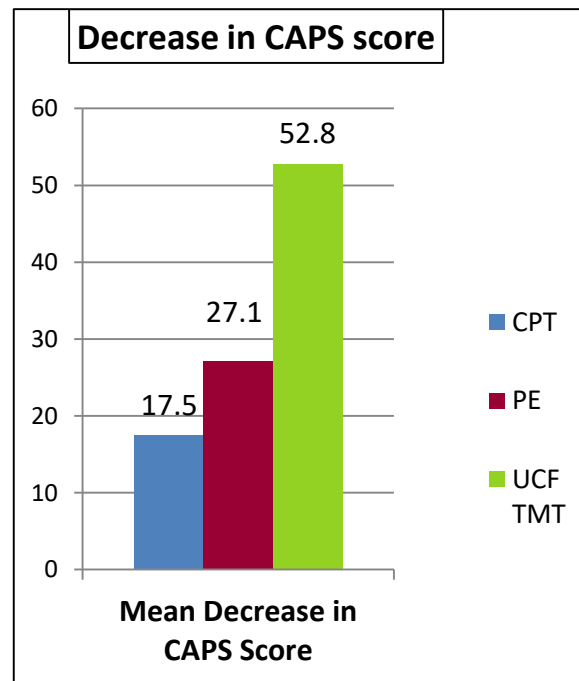
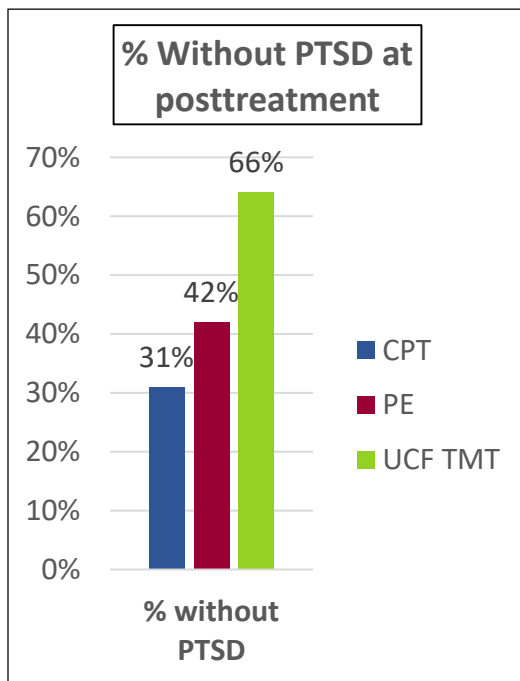
- Multi-component intervention (all 5 days per week for 3 weeks)
 - Imaginal or VR individual exposure
 - In-vivo exposure
 - Group treatment

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1	Behavioral Activation	Improving Sleep	Anger Management	Social Reintegration	Behavioral Activation
Week 2	Improving Sleep	Anger Management	Social Reintegration	Behavioral Activation	Improving Sleep Skills
Week 3	Anger Management – Guilt	Social Reintegration	Behavioral Activation	Integration Session	Relapse Prevention

UCF RESTORES

Trauma Management Therapy (TMT)

UCF TMT outcome vs. Cognitive Processing Therapy (CPT) and Prolonged Exposure (PE) for Combat PTSD

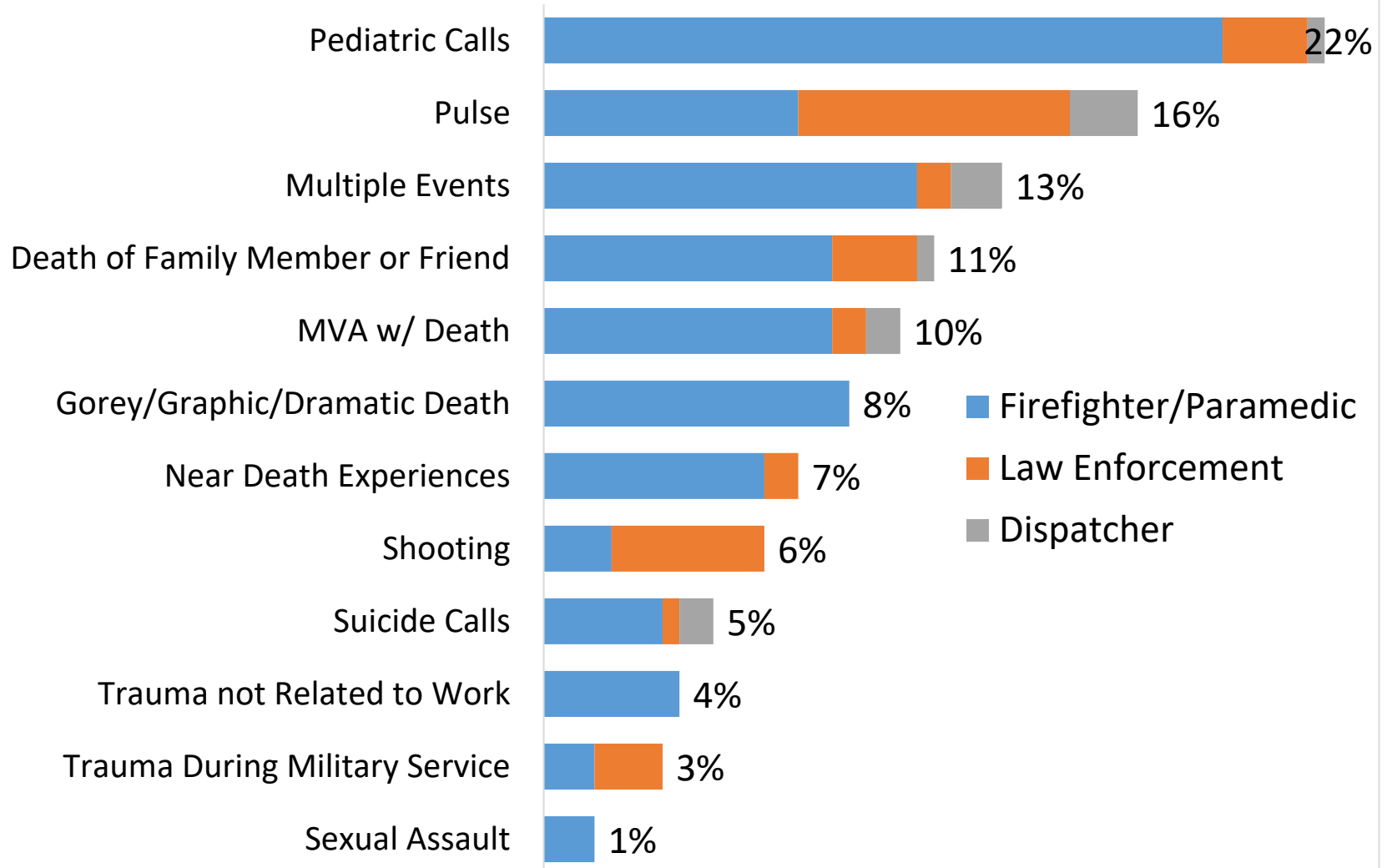


Pulse Nightclub Shooting – June 12, 2016

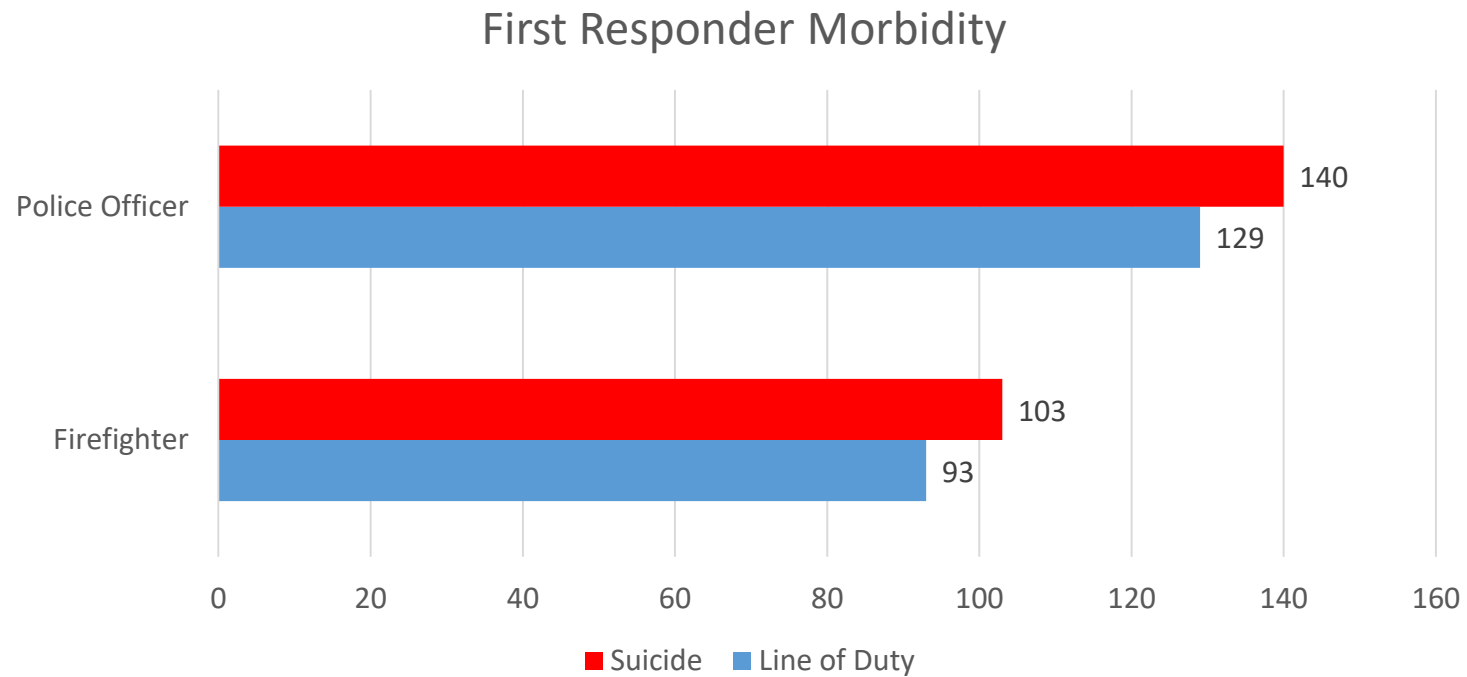
- Latin night – 300 primarily Latino patrons
- 2:00am - officer reported shots fired
- Incident became a hostage situation
- 5:00am – SWAT teams breached the wall, rescued hostages and killed the gunman



Trauma Index Percentages



SUICIDE AND FIRST RESPONDERS



TMT for Pulse First Responders

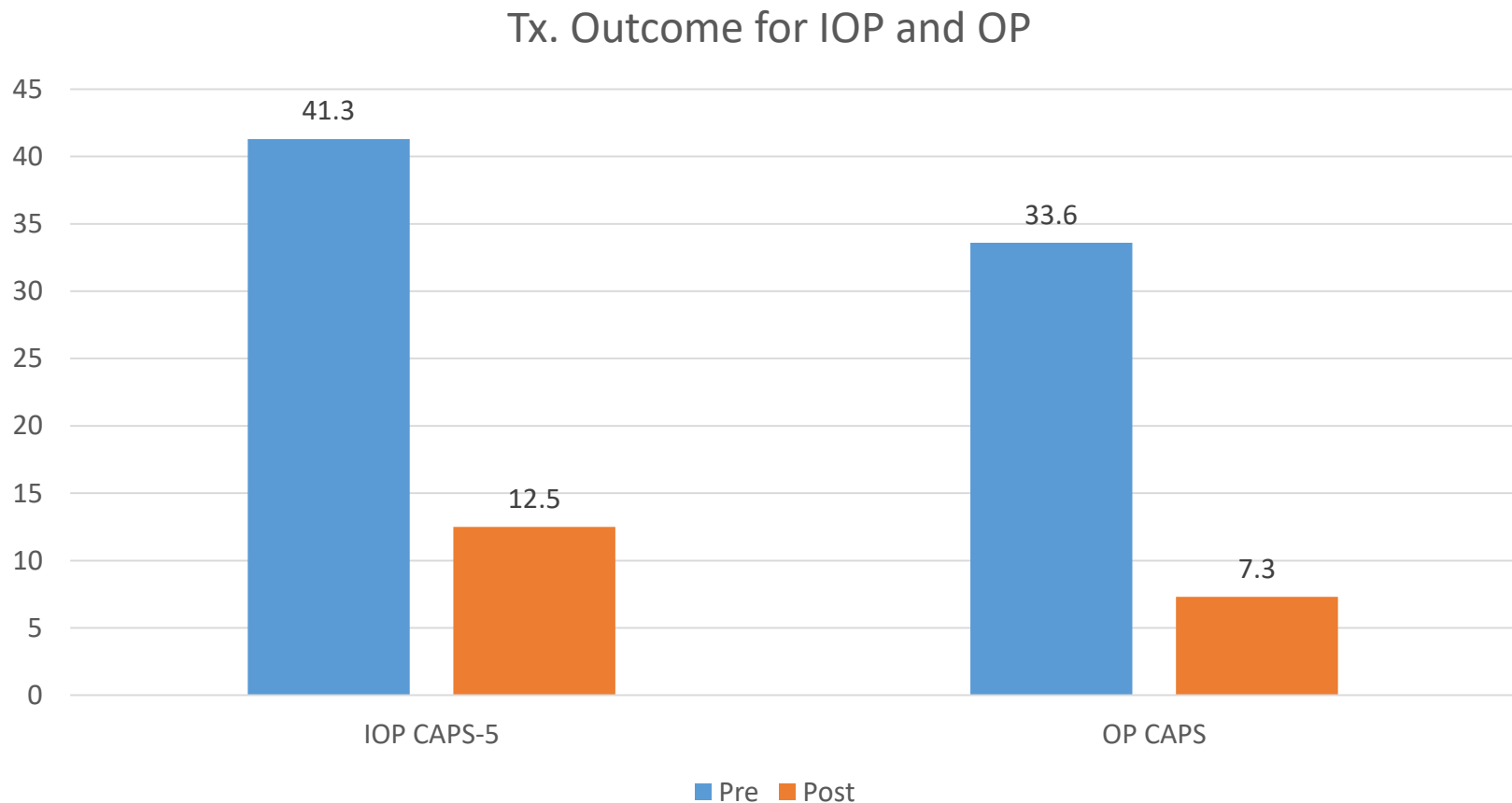
- Trauma Management Therapy – adapted
 - Exposure to sounds and smells
 - In vivo exposure – to their uniforms, to driving the route to Pulse
 - Group intervention to deal with anger and depression



“It was a war zone in there – no one ever saw anything like this.”

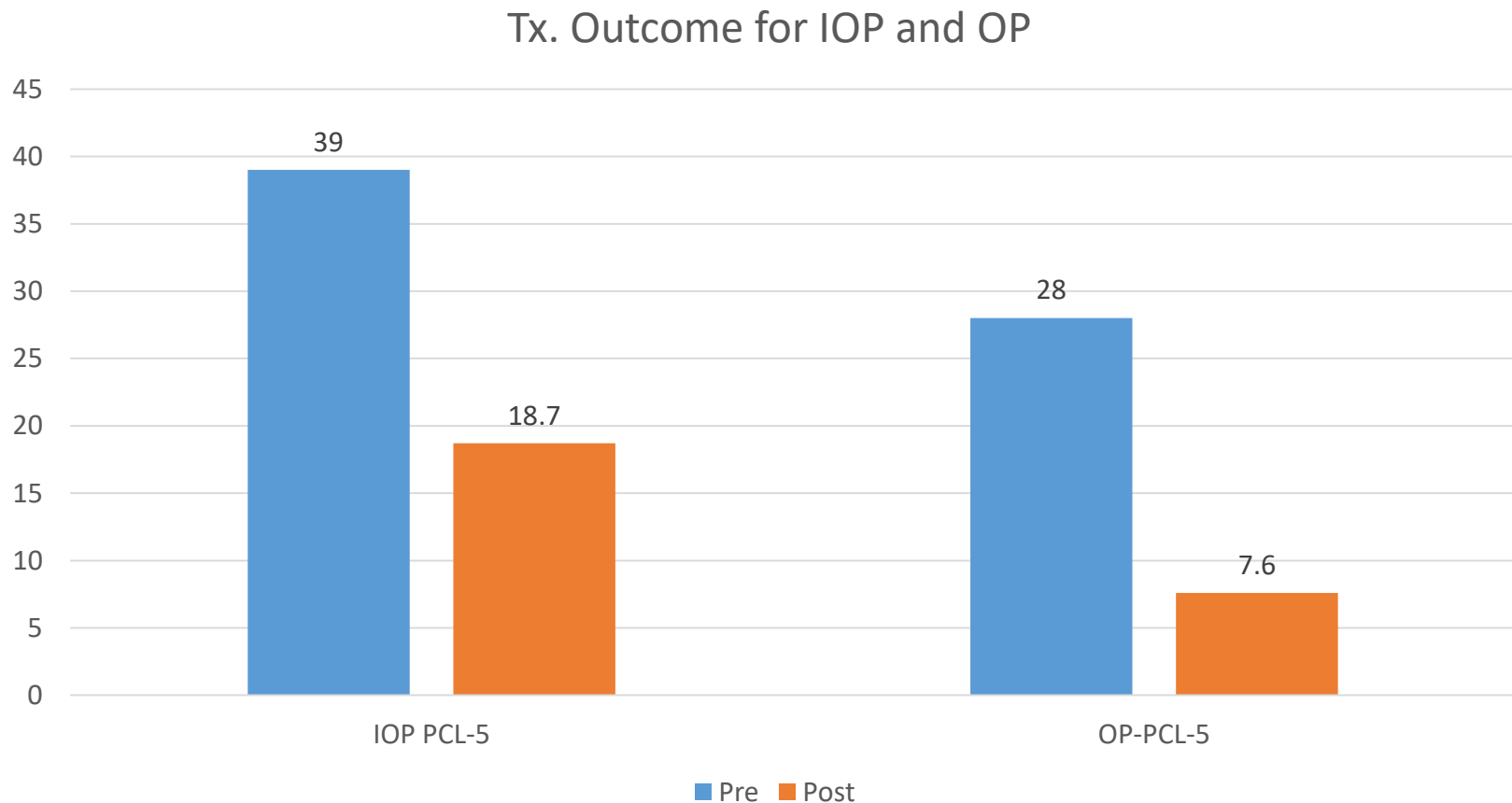
“I had to keep telling those people that help was coming even when I knew it was not.”

Results of TMT for First Responder Trauma



n=132 ps<.01

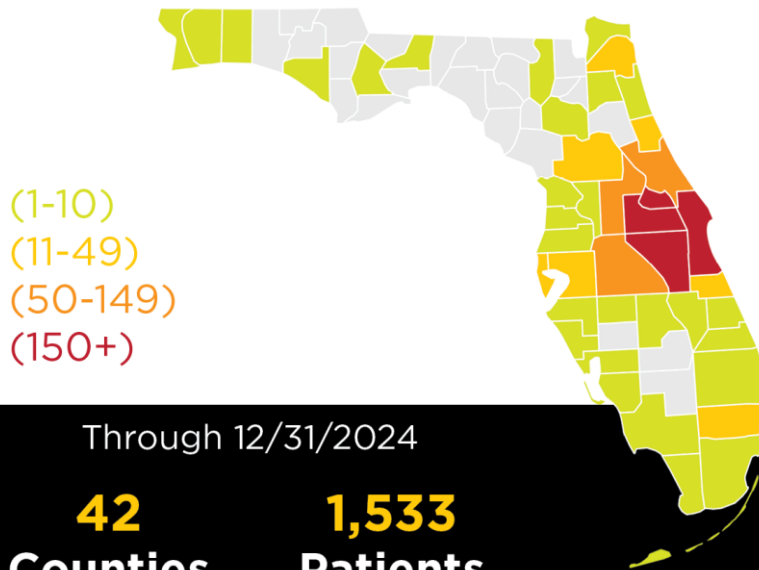
Results of TMT for First Responder Trauma



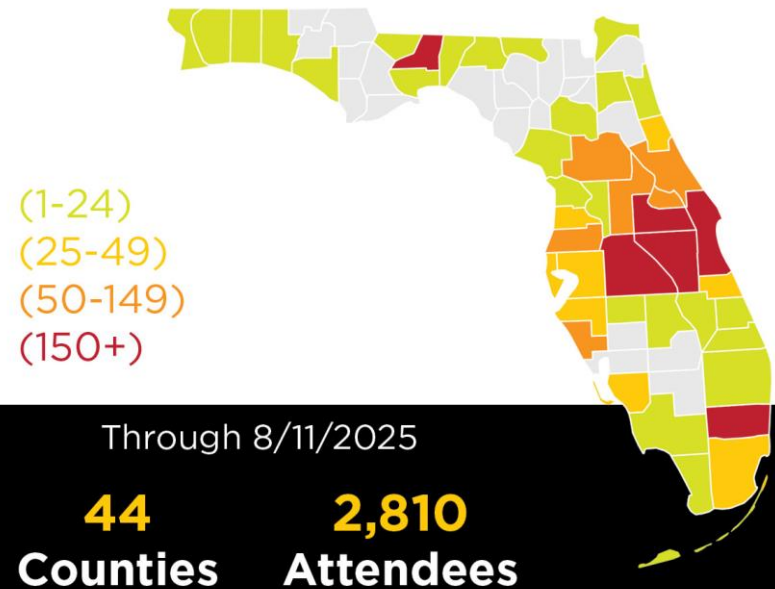
n=132 ps<.01

Scope of our Treatment and Training Programs

Florida Patients Served by County



REACT Training Program



Champlain Towers Collapse

- June 24, 2021
 - 12 story tower collapsed/pancaked
 - 136 people in the tower
 - 98 perished – all recovered
 - 3rd higher death count in U.S. history, excluding terrorist attacks
 - 22 million pounds of debris removed by hand in 29 days.
- 394 members of urban search and rescue (USAR) teams participated in recovery
- First time mental wellness resources were deployed

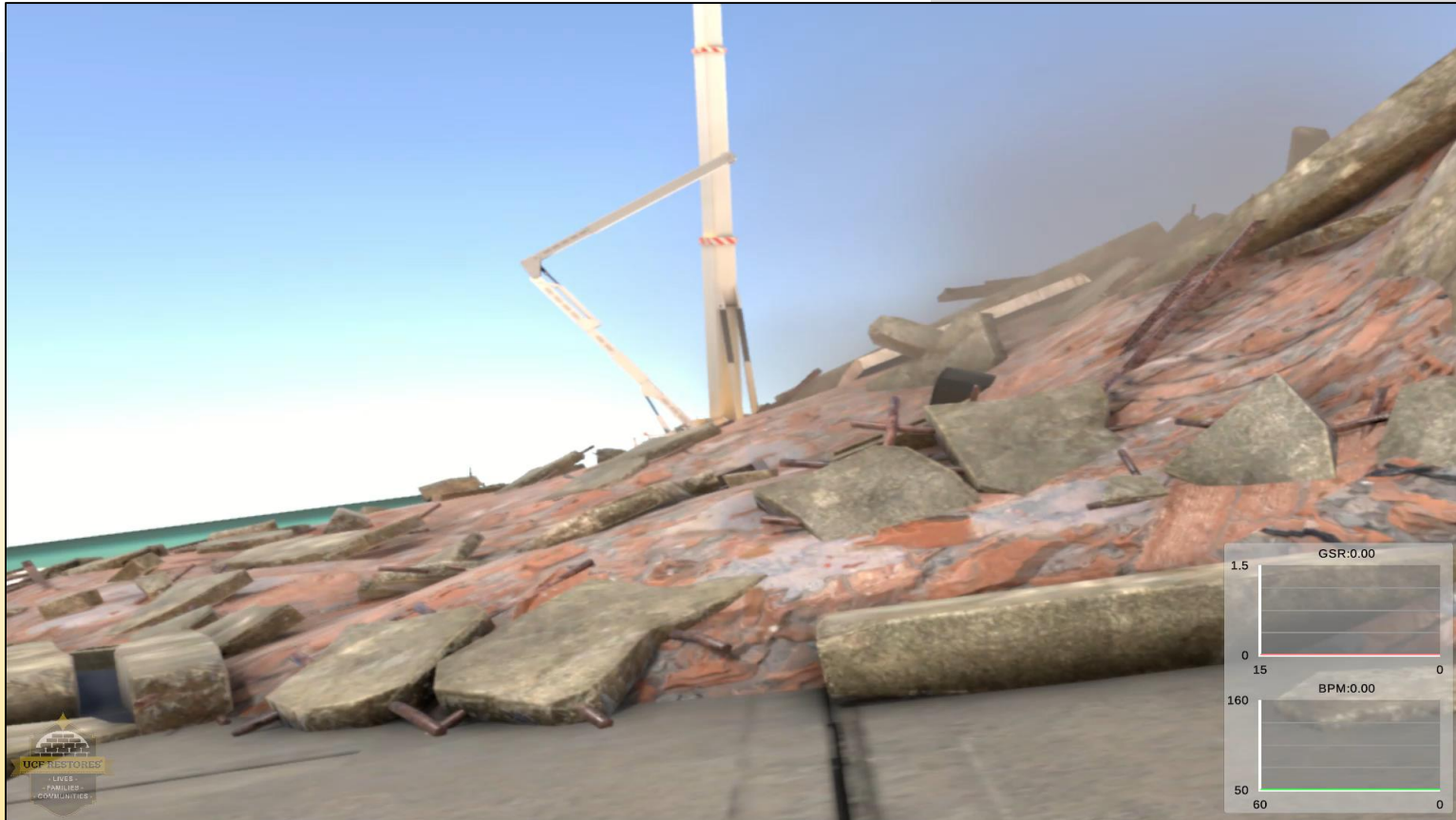


MH Symptoms-Recovering Human Remains

Measures	Mean and Standard Deviation		p value
	Recovered human remains (n=19)	Did not recover human remains (n=17)	
PHQ-9	4.95 (6.73)	2.52 (3.02)	<.05
PCL-5	12.63 (14.34)	8.65 (8.91)	<.01
GAD-7	4.11 (5.28)	2.01 (2.19)	<.025
SCS	3.83 (1.24)	4.53 (1.74)	ns
ISI	8.78 (6.64)	7.06 (4.93)	ns

All who scored above the cut-offs for a measure were in the “recovered” group
52.6% in the “recovered” group met cut-off criteria for a psychological disorder
15.8% probable PTSD; 26.3% probable generalized anxiety;
36.8% probable depression

Patient View - Surfside



Barriers to Treatment Engagement



- Two barriers that differentiated users of mental health treatment from non-users:
 - Concerns about reputation
 - Embarrassment (being seen as weak, being treated differently)
- Another critical concern
 - Clinicians who truly understand firefighter culture

Hom et al., 2016; Gulliver et al., 2019

Occupational Competency

Firefighter Online Clinician Training Course

Empowers licensed mental health clinicians to effectively understand and address the specific needs of firefighters.

Culturally-
Informed Insights

Expert-Led
Training

Flexible, Self-
Paced Learning

Continuing
Education Credits



Register
<https://www.supportingfirefightermentalwellness.com>



Contact Us
(407) 823-3910



Law Enforcement Online Clinician Training Course

Prepares clinicians to address the unique mental health needs of law enforcement officers.

Culturally-
Informed Insights

Expert-Led
Training

Flexible, Self-
Paced Learning

Continuing
Education Credits



Register
<https://www.supportinglawenforcementmentalwellness.com>



Contact Us
(407) 823-3910



UCF



REGISTER LOG IN   

FIND SUPPORT ▾

ADDITIONAL RESOURCES

FOR PROVIDERS

ABOUT US

Serving firefighters and
their families in their
times of need.

REDLINE RESCUE

BLUELINE RESCUE

GOLDLINE RESCUE

FIND SUPPORT

LET US HELP YOU FIND
SUPPORT RESOURCES

FIND A CLINICIAN

FIND A PEER SUPPORT PROVIDER

FIND A CHAPLAIN

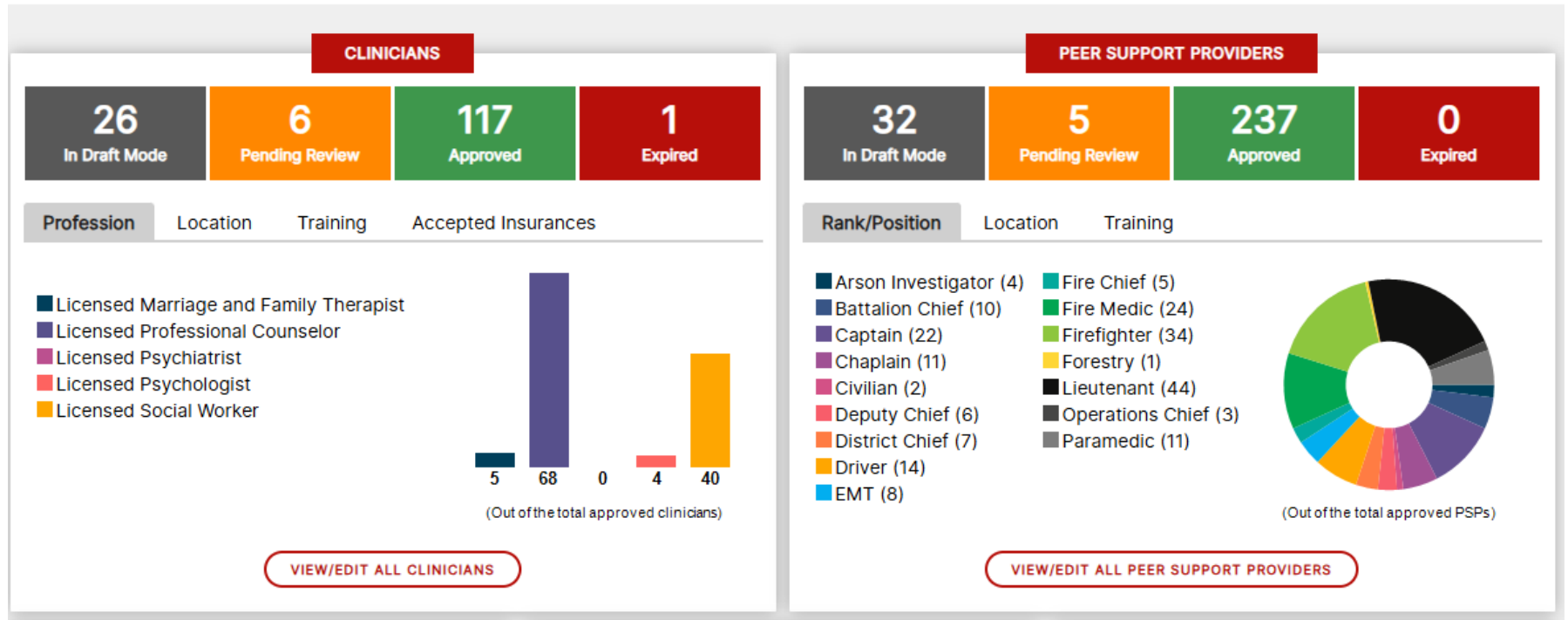
REGISTER TODAY

ARE YOU A CLINICIAN OR
PEER SUPPORT
PROVIDER?

- [How can I be added as a resource?](#)
- [What type of documentation and training is required to be listed as a resource?](#)

REGISTER

Redline Rescue



Need for Mental Wellness Support



- Unique event
- Enormity of destruction
- Recovery of deceased would
 - take weeks
 - occur in extreme heat, humidity, daily thunderstorms and threat of a hurricane
 - exert significant physical and mental stress

MIAMI - DADE FIRE RESCUE

you're NOT OUR patients
you are our neighbors
you are our friends
you are our FAMILY

We know you're hurting
We are hurting too
we just can't show it yet.

Surfside Strong!



UCF

Mitigating Stress During Operations - Walking in Nature



- Walking in nature for 15-20 minutes decreases situational distress and enhancing cognitive functioning.³
- But what if your job does not allow you to go outside and walk in a natural setting?
- What if the natural setting is now a disaster zone?



MITIGATING OCCUPATIONAL STRESS

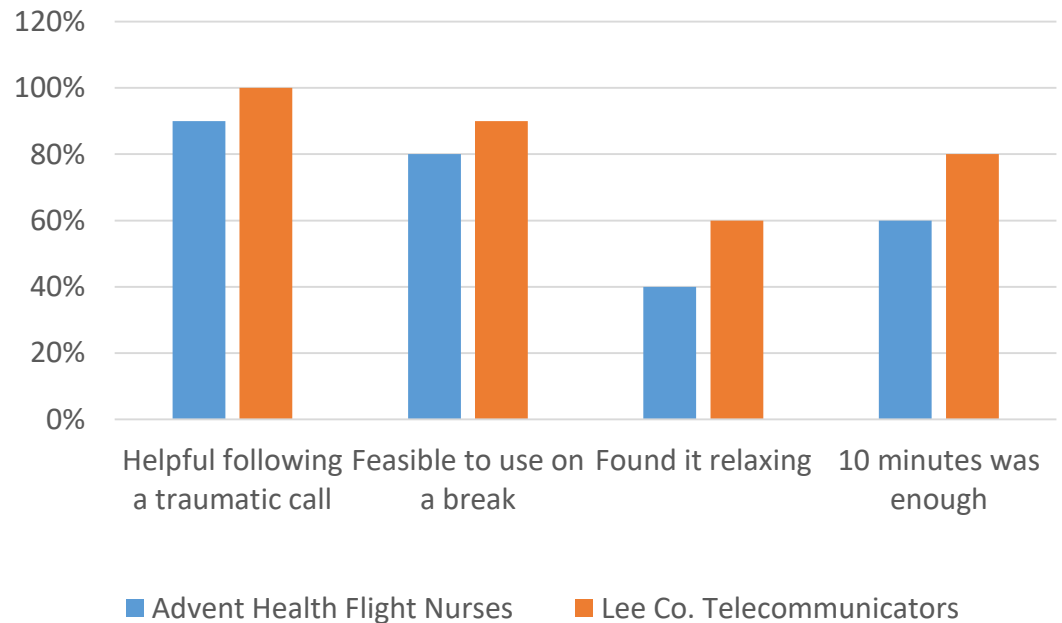
Can we use VR when nature is not available?

- must be durable
- not need the internet
- not need electricity



Mitigating Occupational Stress

- Two usability studies:
 - Lee County EMS/telecommunicators
 - Advent Health pediatric flight nurses
- Instructed to use the VR system after a stressful call/event. Collected data on
 - Feasibility
 - Usability
 - Initial efficacy



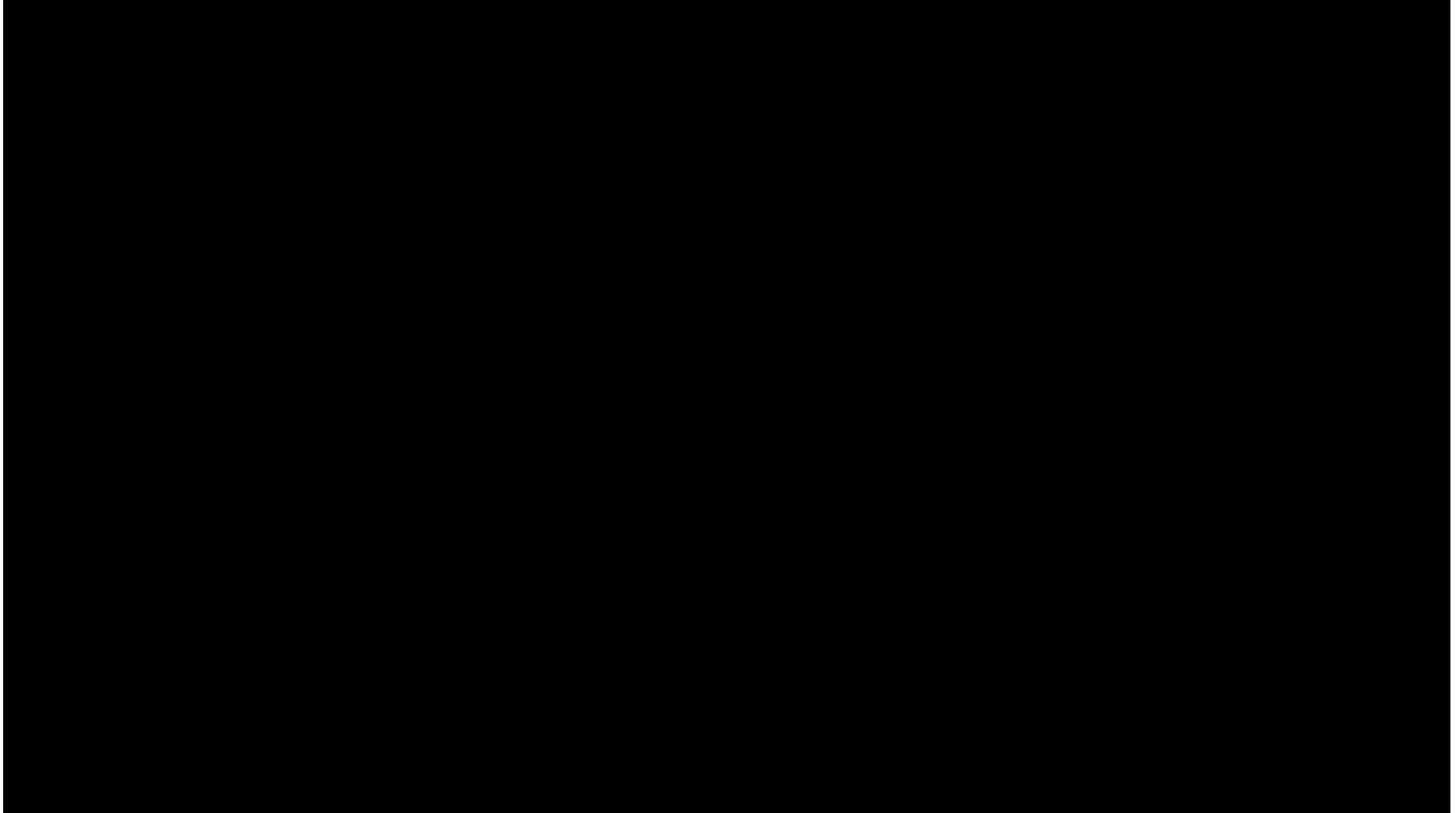
VR to mitigate Hurricane Helene stress



Resiliency Command Center



Some Final Words



UCF RESTORES

- Lives
- Families
- Communities



Deborah.Beidel@ucf.edu

www.ucfrestores.com

Evaluation Forms

You can fill out the evaluation form using the app. Look for the evaluation form link at the bottom of each session. (preferred)

OR

You can fill out the evaluation sheet by hand and give it to a staff member or the moderator of the session.

You need to fill this form out to receive full credit for the session.

Thank you!