

iCOVER: Peer-Based Intervention for Acute Stress Reaction

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Silver Spring, Md.

0800 – 0900 ET
26 October 2023

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Walter Reed Army
Institute of Research



Presenter

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Amy B. Adler, Ph.D., is a clinical research psychologist and senior scientist with the Center for Military Psychiatry and Neuroscience at the Walter Reed Army Institute of Research (WRAIR). She has authored more than 175 articles and chapters and edited seven books.

Dr. Adler's research interests include developing easily-fielded emotion regulation techniques, health-promoting leadership strategies, and peer-based management of acute stress in high-stakes operations.

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Learning Objectives

At the conclusion of this activity, participants will be able to:

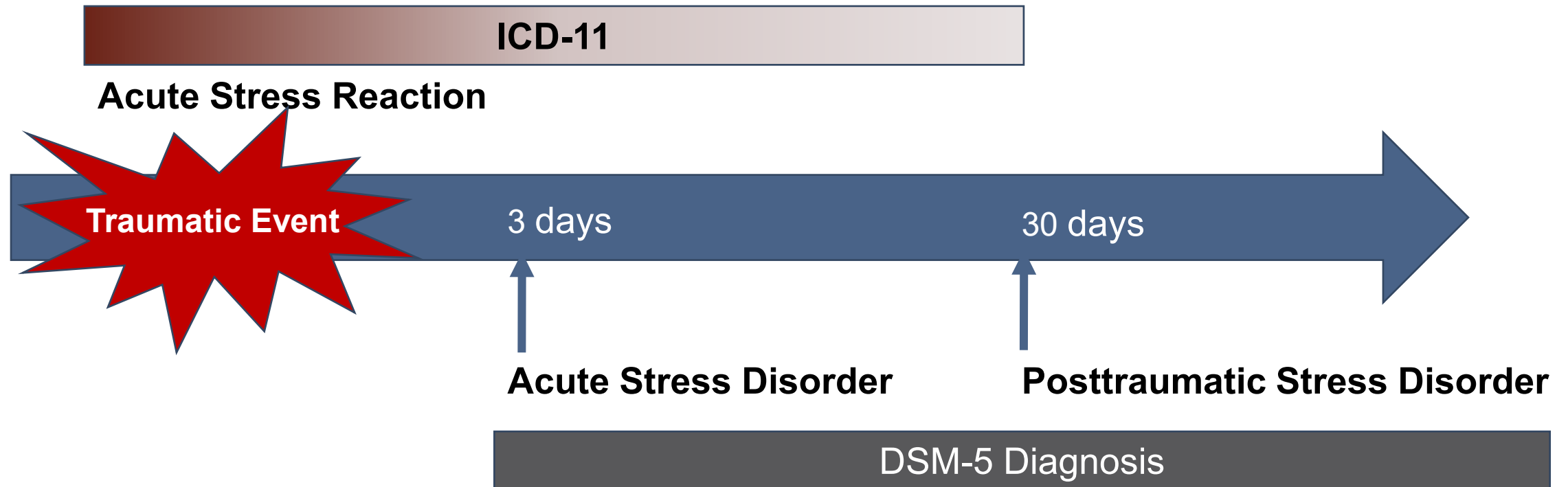
1. Identify symptoms of acute stress reaction and its relevance in the military context.
2. Describe the estimated prevalence of acute stress reaction.
3. Outline the six steps in the iCOVER technique.

Acute Stress Reaction (ASR)

- Individuals in high-risk occupations like the military may experience an acute stress reaction

- A severe, immediate response to traumatic stress that impedes functioning
- Potentially endangers themselves and their team

ASR vs. Acute Stress Disorder (ASD) vs. Posttraumatic Stress Disorder (PTSD)



PTSD is in both the ICD-11 and the DSM-5; ASD is not in ICD-11

ICD-11- International Classification of Diseases, 11th Ed.
DSM-5- Diagnostic and Statistical Manual of Mental Disorders, 5th Ed.

ICD 11: ASR

- Not a diagnosis
 - In the section: “Factors influencing health status or contact with health services”
- Refers to the development of transient emotional, somatic, cognitive, or behavioral symptoms as a result of exposure to an event or situation (either short- or long-lasting) of an extremely threatening or horrific nature (e.g., natural or human-made disasters, combat, serious accidents, sexual violence, assault).
- Symptoms may include autonomic signs of anxiety (e.g., tachycardia, sweating, flushing), being in a daze, confusion, sadness, anxiety, anger, despair, overactivity, inactivity, social withdrawal, or stupor.
- Considered to be normal given the severity of the stressor, and usually begins to subside within a few days after the event or following removal from the threatening situation.

Poll #1

What percent of Soldiers report that they may have experienced an acute stress reaction during a combat-related event?

Acute Stress

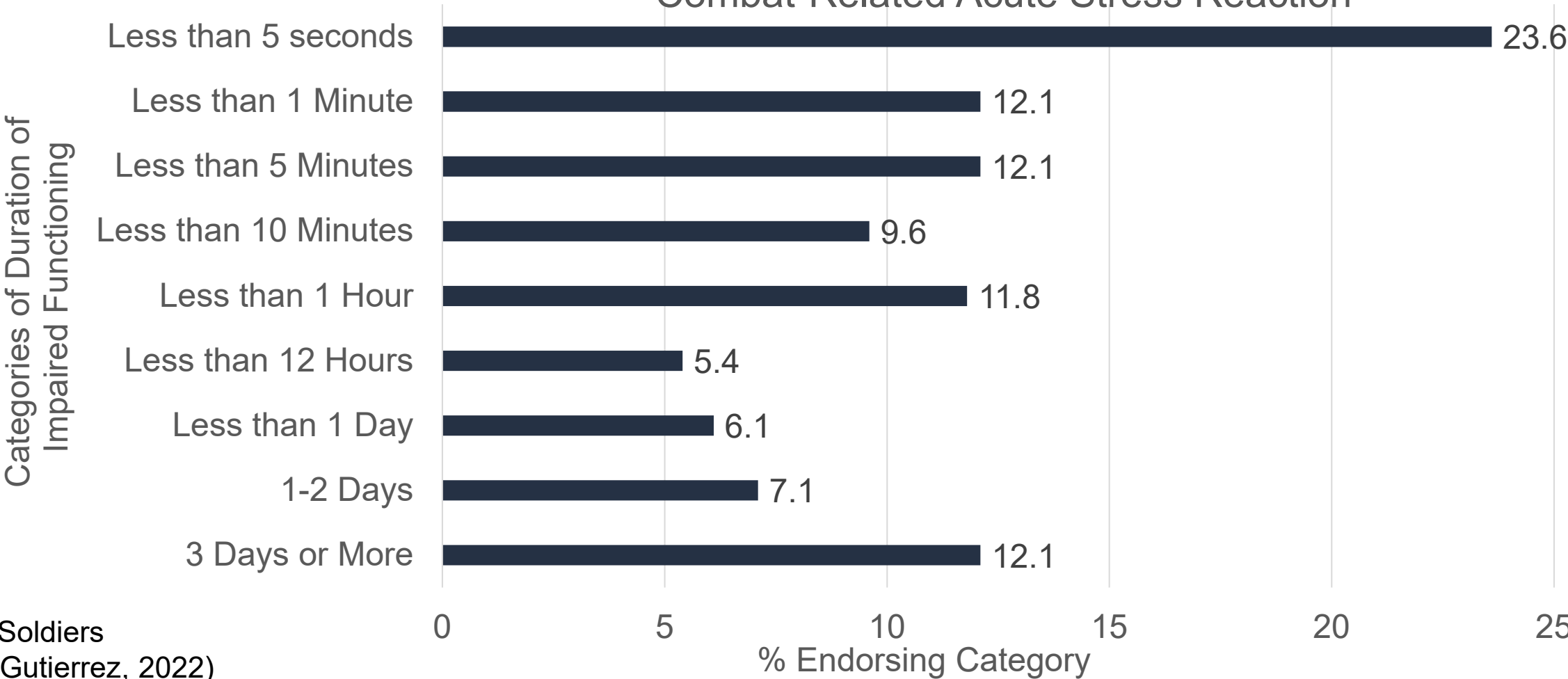
17% of Soldiers report possibly being so mentally stressed during combat that they were unable to function for a period of time

1 in 6

(Adler & Gutierrez, 2022)

Duration

Self-Reported Duration of Impaired Functioning Associated with Combat-Related Acute Stress Reaction



N = 282 Soldiers
(Adler & Gutierrez, 2022)

Team members

Soldiers were asked if they encountered team members who were so mentally stressed during combat that they were unable to function for a period of time

51.7%

176 Soldiers at pre-deployment with combat experience

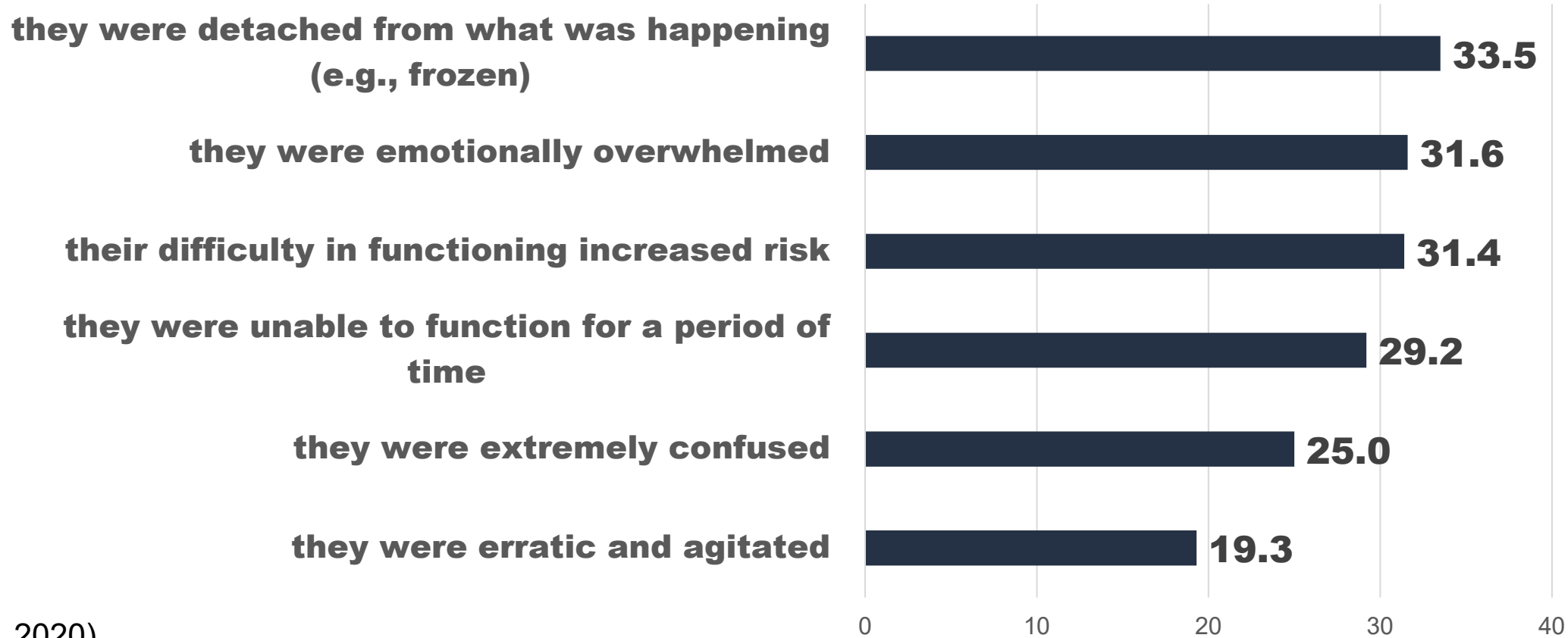
42.5%

497 Soldiers during combat deployment

(Adler et al., 2020)

Type of Encounter

During a significant combat-related event, I encountered a service member who was so mentally stressed that...

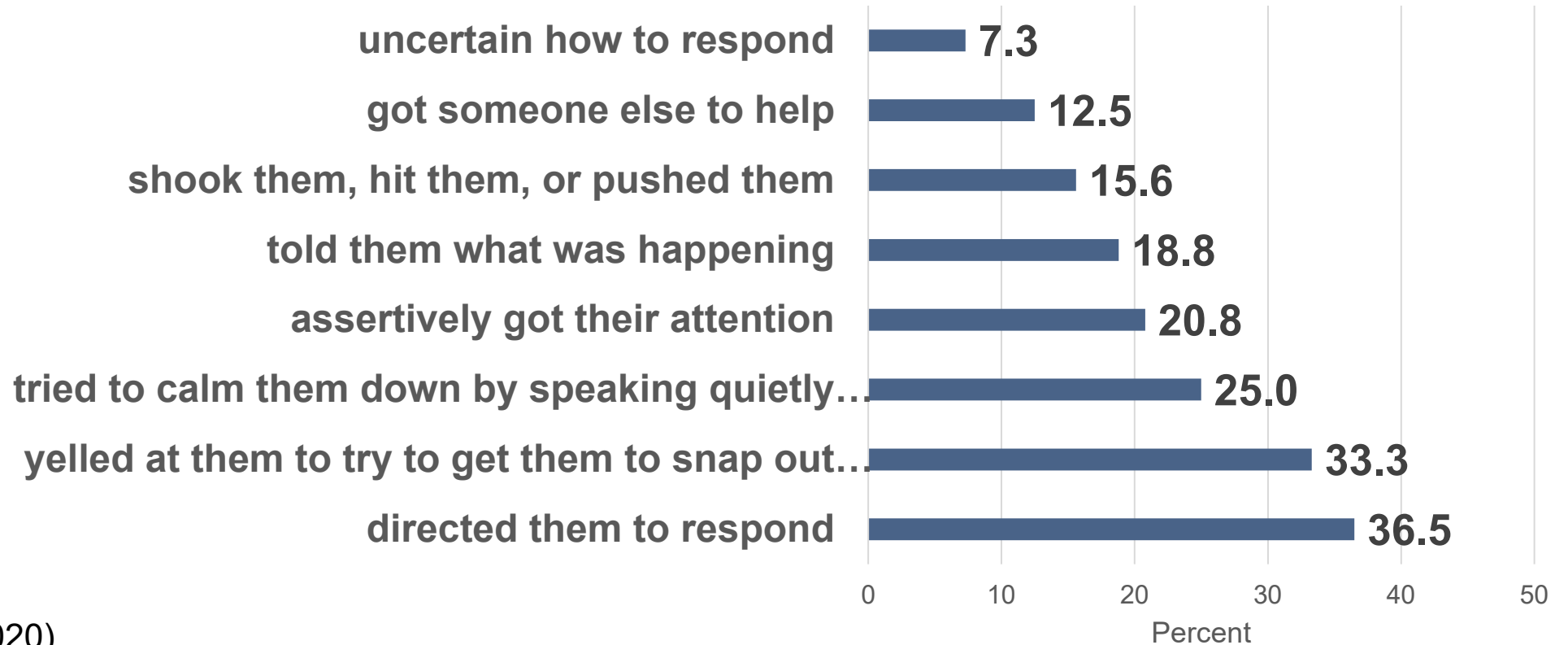


(Adler et al., 2020)

Response to ASRs

- Of the 98* who reported seeing someone too stressed to function...

When I encountered a service member who had difficulty functioning because of mental stress during a significant combat-related event, I...

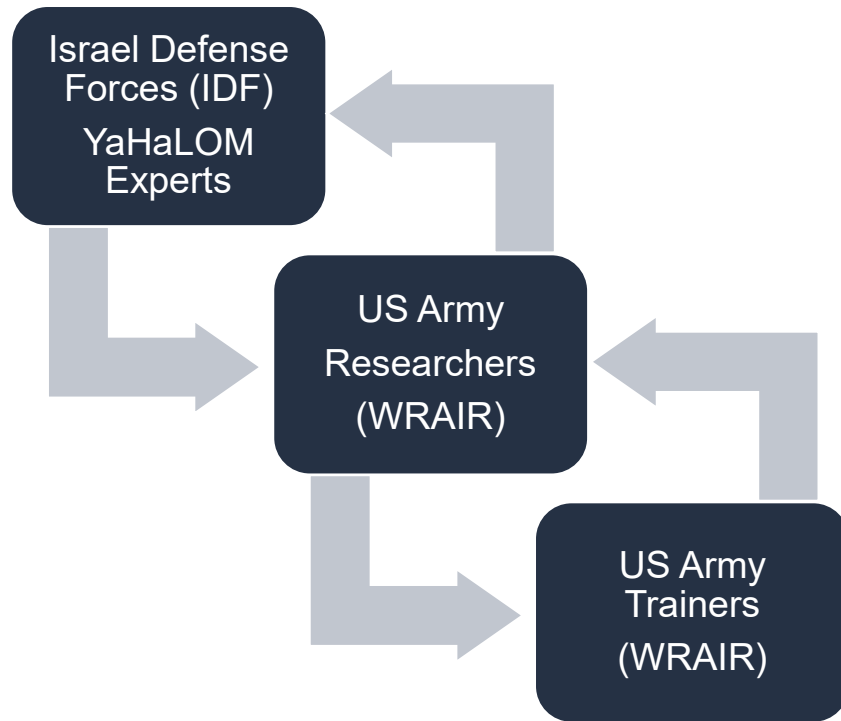


*(Sample 1; Adler et al., 2020)

Poll #2

Have you ever heard of iCOVER before this talk?

Translating the Intervention



(WRAIR, 2020)



Amygdala Hijack




(WRAIR, 2020)

iCOVER in Action



(WRAIR, 2020)

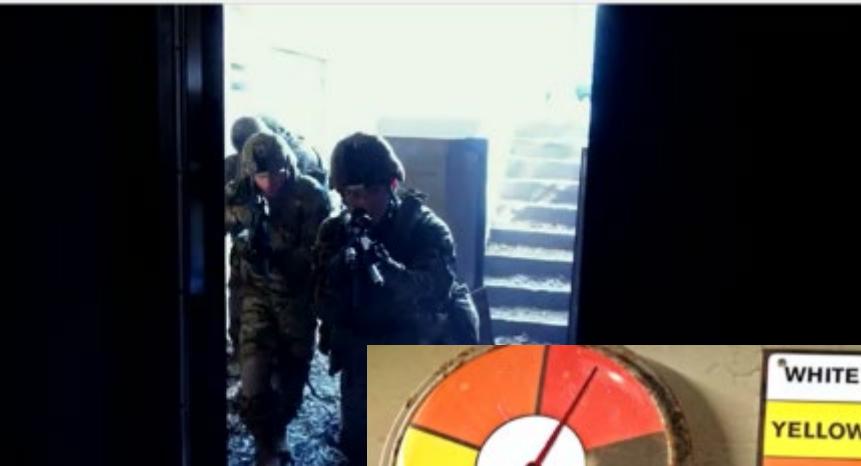
iCOVER

The graphic for the iCOVER acronym is positioned on the left side of a yellow rectangular box. It consists of the word "COVER" in a large, white, sans-serif font, oriented vertically. A small black silhouette of a person's head and shoulders is placed to the left of the letter "O". Below "COVER", the letter "i" is written in a smaller, white, sans-serif font, with a black dot above it.

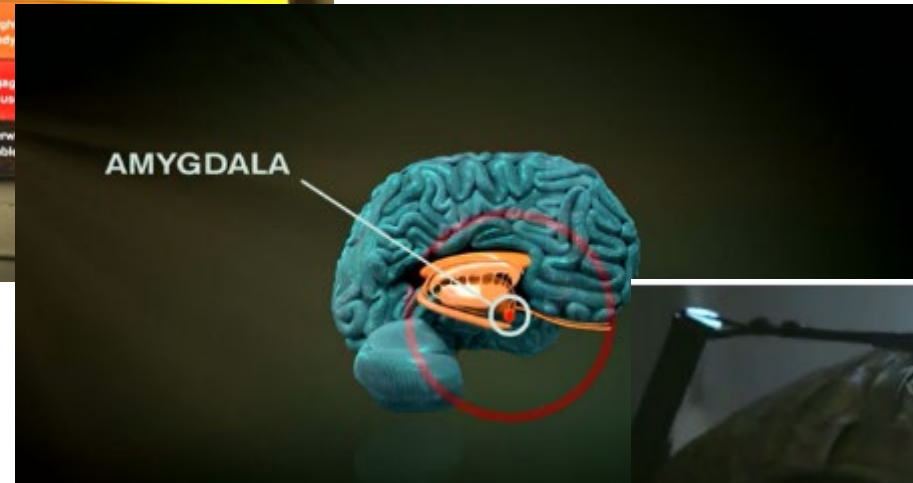
Identify Buddy in need
Connect
Offer commitment
Verify facts
Establish order of events
Request action

(WRAIR, n.d.)

iCOVER, continued



WHITE	Relaxed. Unaware and not ready to take action.
YELLOW	Alert. Prepared, aware, and relaxed.
ORANGE	Height Ready
RED	Engaged Focus
BLACK	Overwhelmed Unavailable



**YouTube Search:
“WRAIR” and
“iCOVER”**



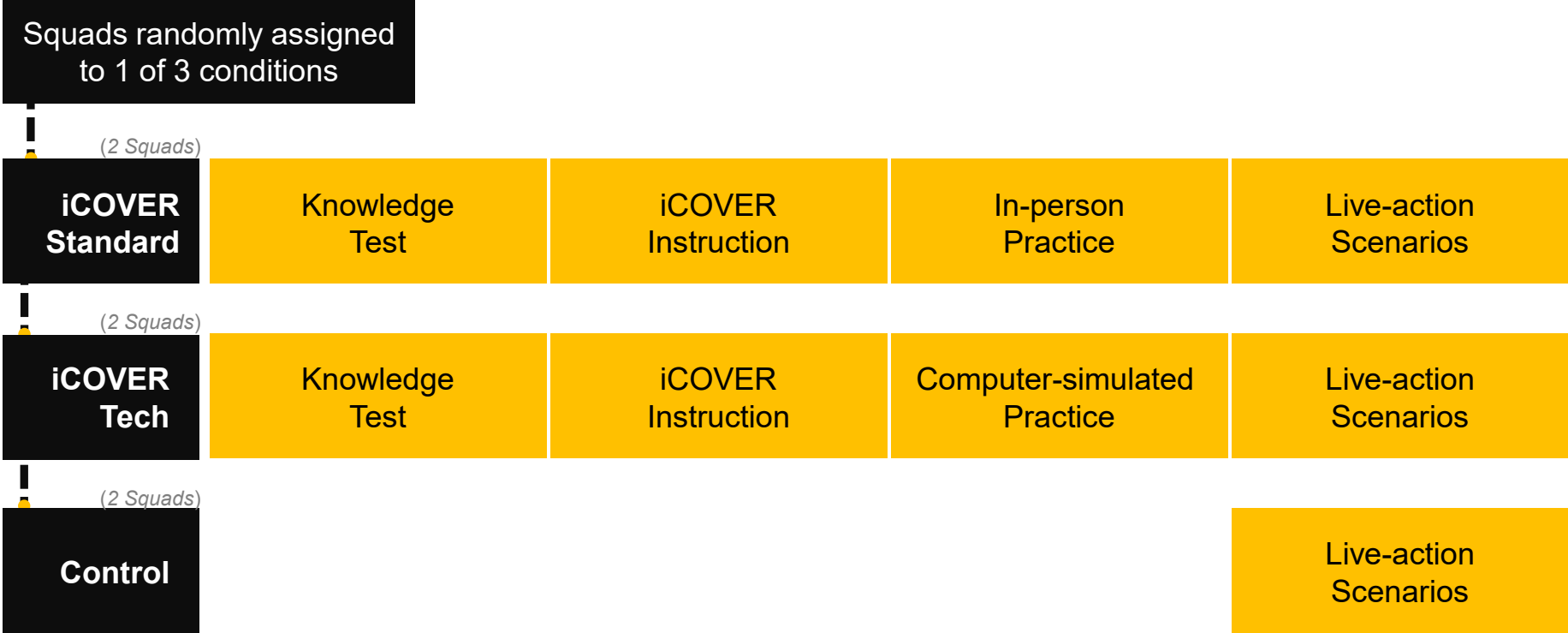
(WRAIR, 2020)

Research Questions: Training Study

- Do service members like the iCOVER training?
- Does iCOVER training impact knowledge and performance of iCOVER skills?
- Is there a difference between in-person and computer-simulated practice on service members' perception of the training and their ability to perform iCOVER?

(Adler et al., 2019)

Study Design



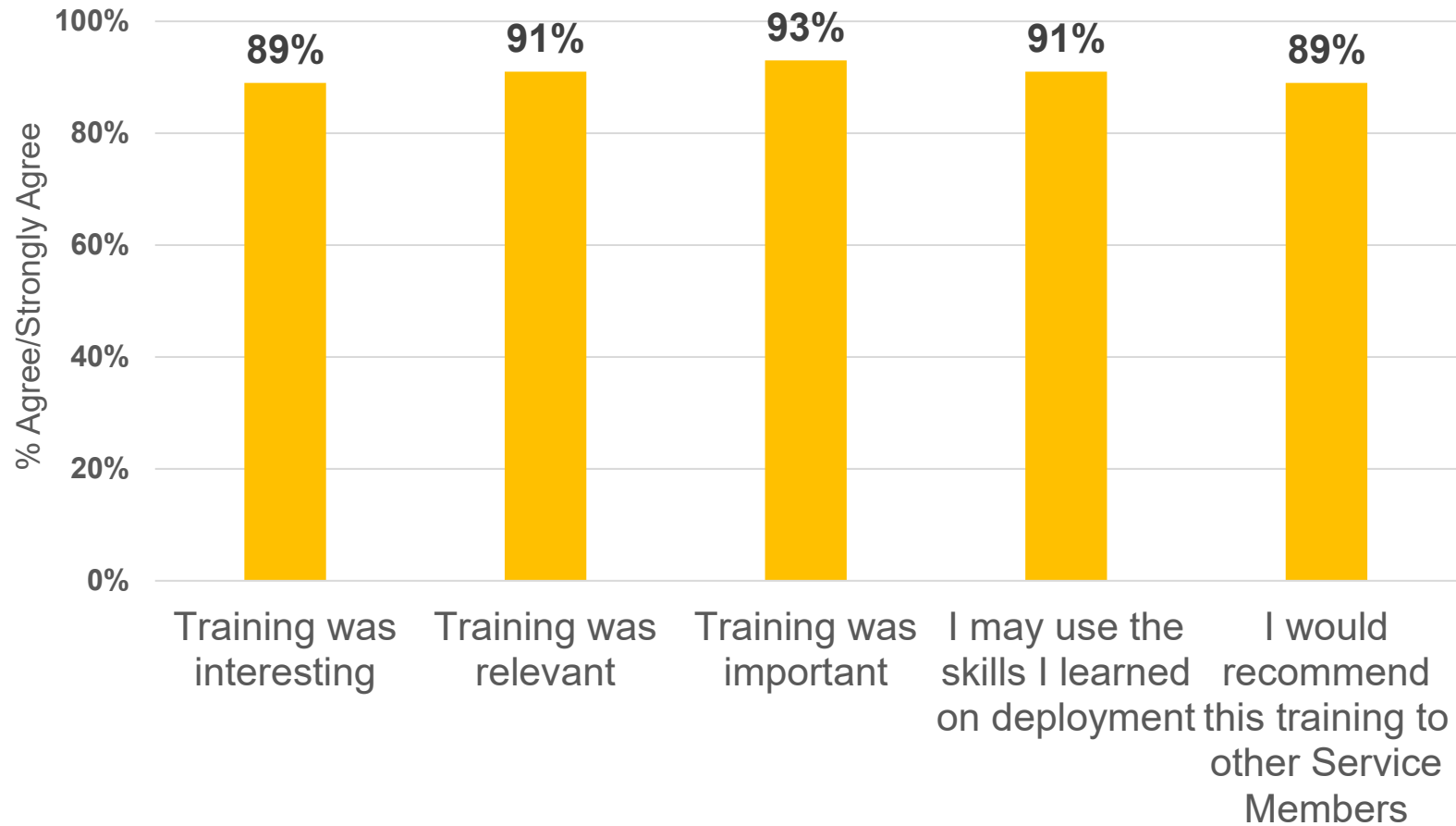
(Adler et al., 2019)

Participants

- 6 squads
 - 66 Active-Duty Soldiers (62.1%) and Marines (37.9%)
 - 100% male
 - 84.6% junior enlisted
- Research conducted as part of Team Overmatch
 - Led by Dr. Laura Milham, Naval Air Warfare Center Training Systems Division (NAWCTSD)
 - Funded by a grant from Joint Program Committee-1 (JPC-1)

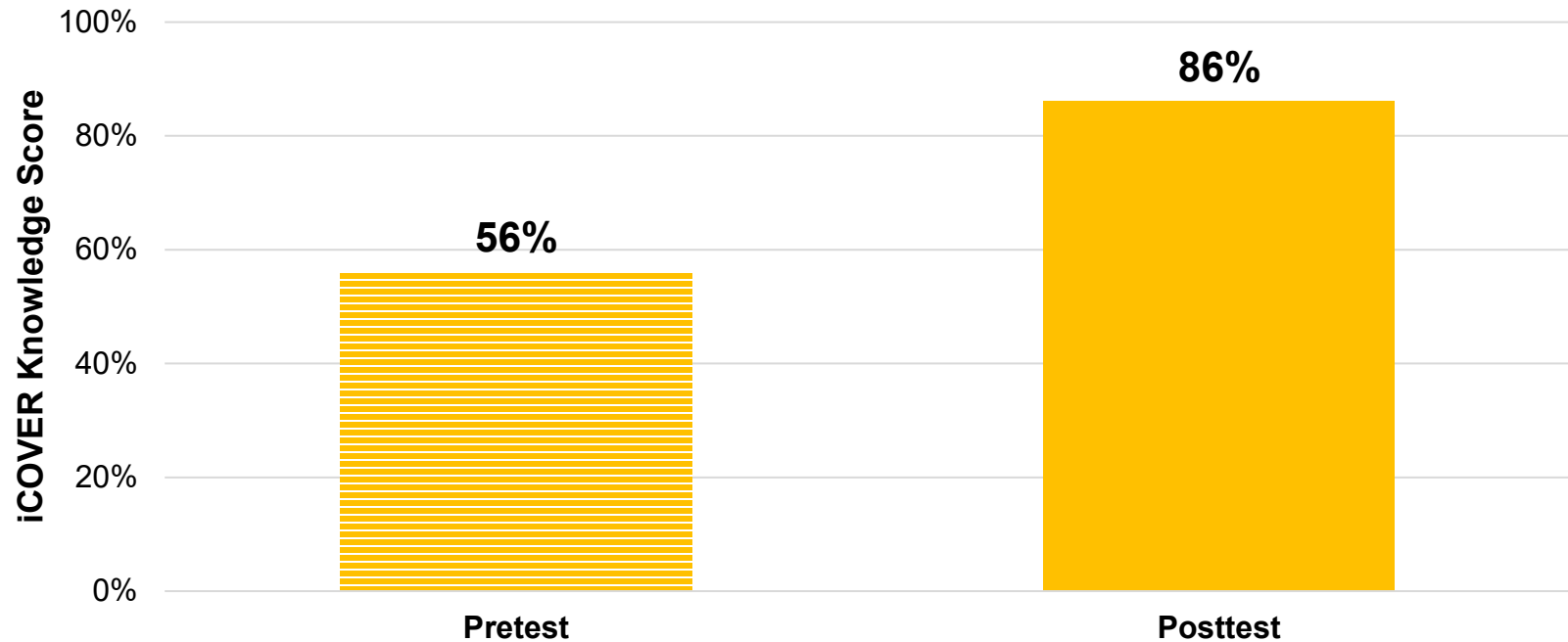
(Adler et al., 2019)

iCOVER Training: Acceptability



(Adler et al., 2019)

iCOVER Knowledge



Note: Combined iCOVER conditions.

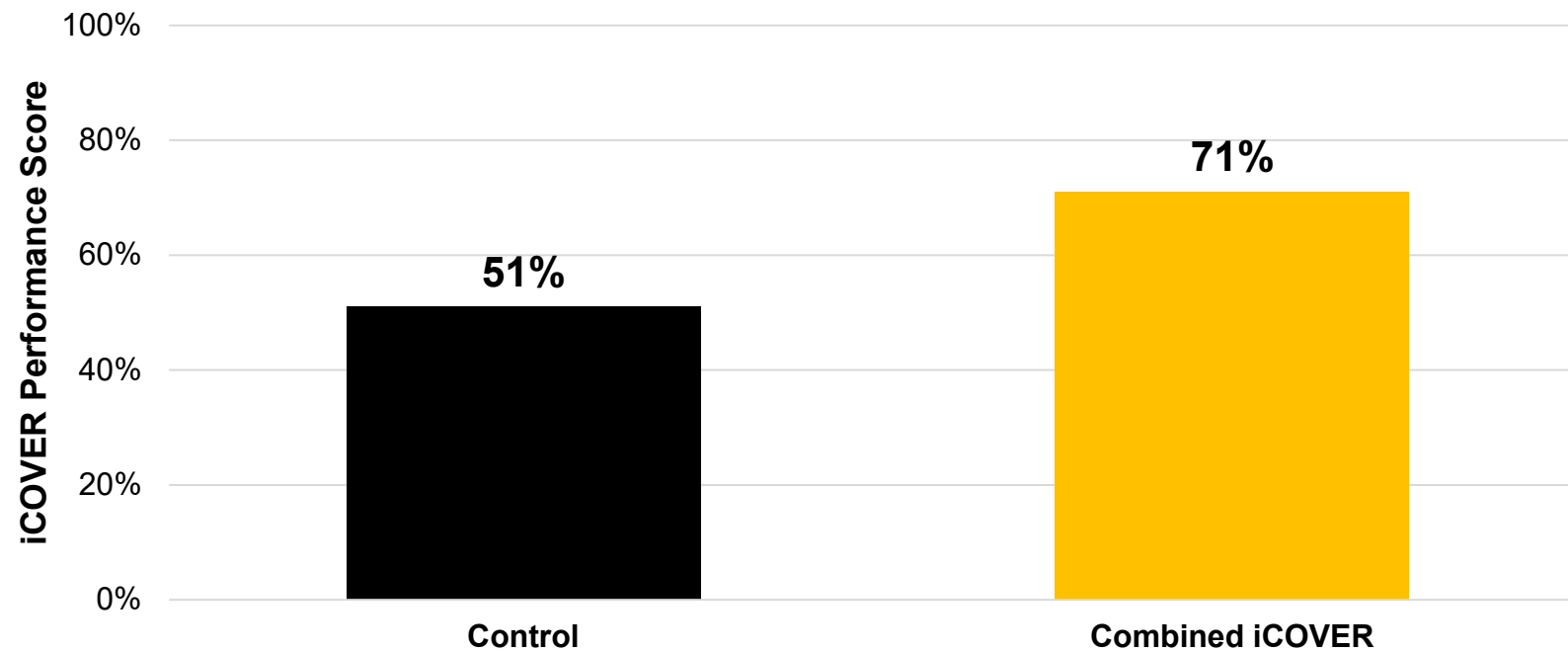
(Adler et al., 2019)

Realistic Training



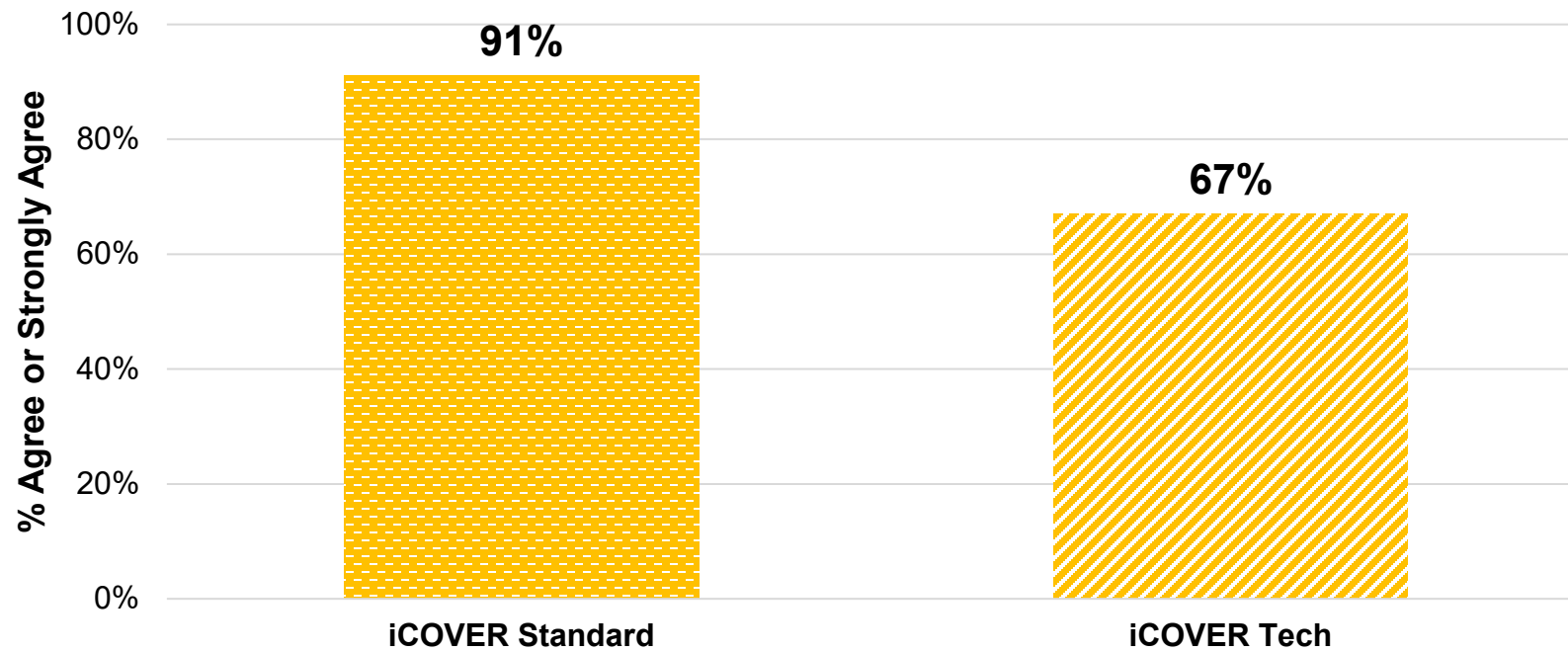
(Adler et al., 2019)

iCOVER Performance



(Adler et al., 2019)

iCOVER Acceptability: Standard vs. Tech

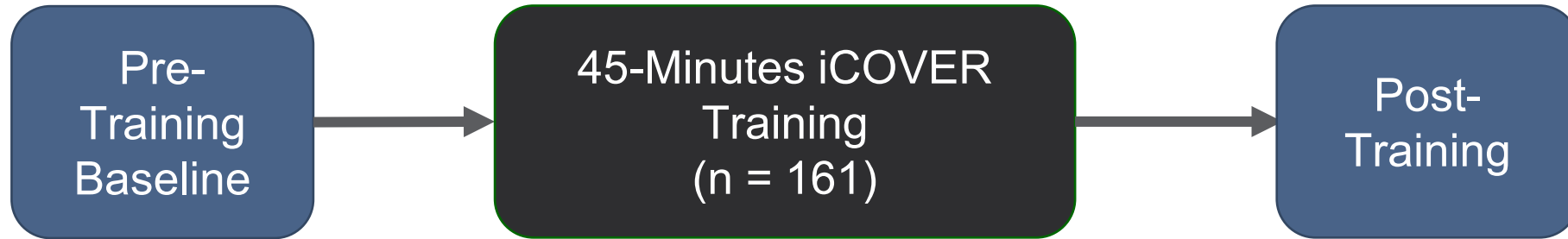


(Adler et al., 2019)

Study Questions: Pre-Deployment Study

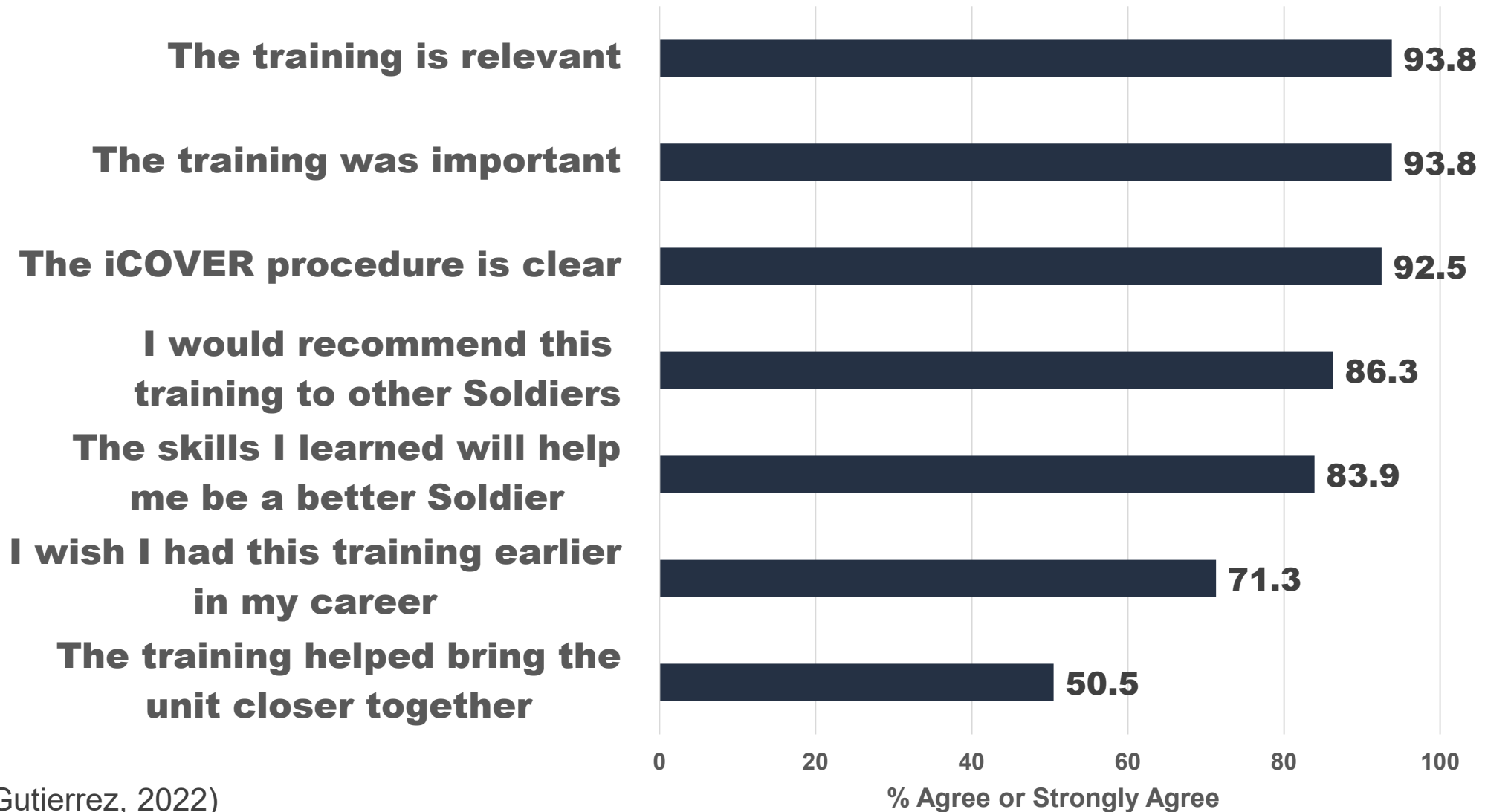
- What is Soldier acceptance of iCOVER training at pre-deployment?
- Does iCOVER Training impact
 - Knowledge?
 - Attitudes about ASR?
 - Attitudes about unit and leadership?

iCOVER Deployment Study



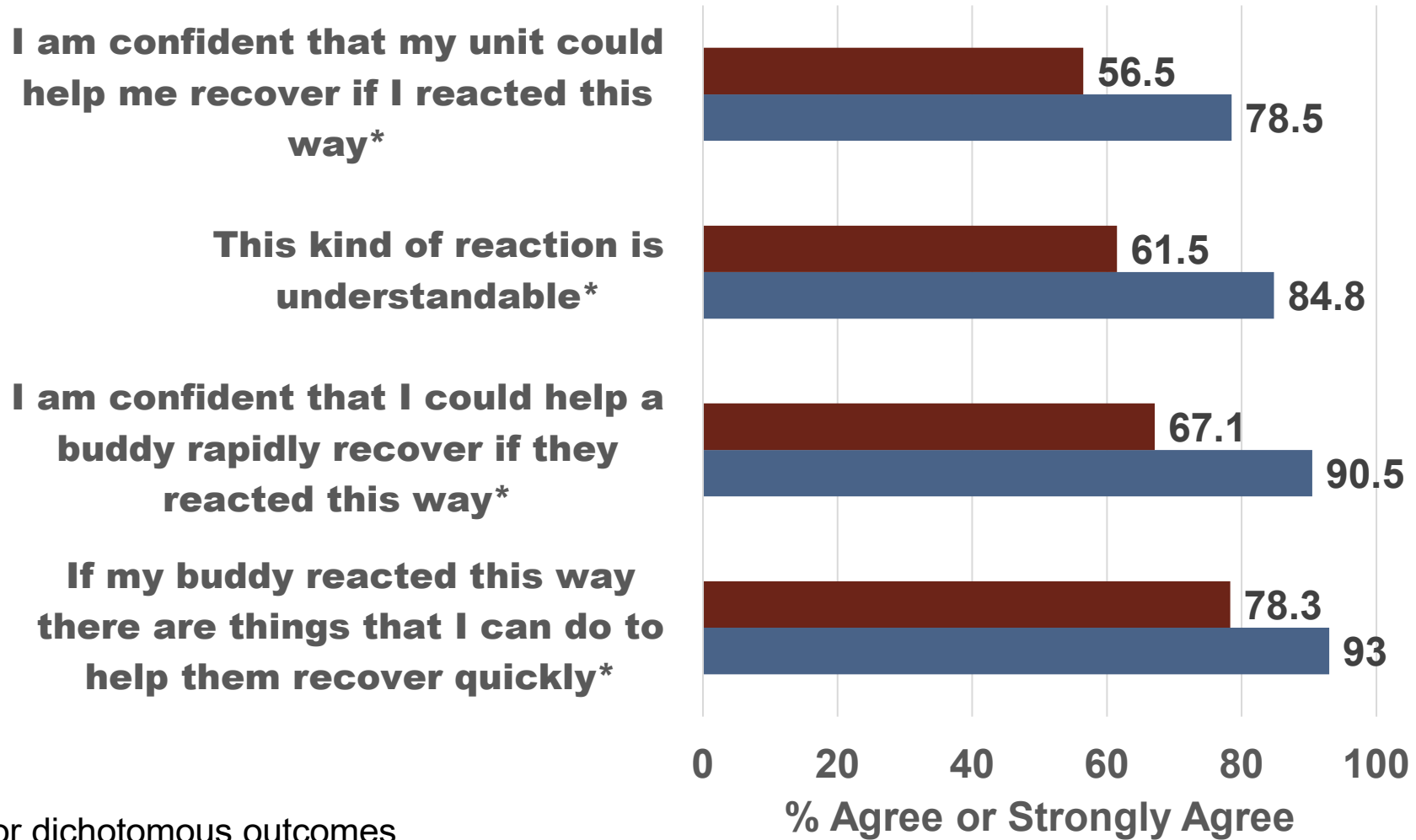
(Adler & Gutierrez 2022)

Perceptions of iCOVER Training



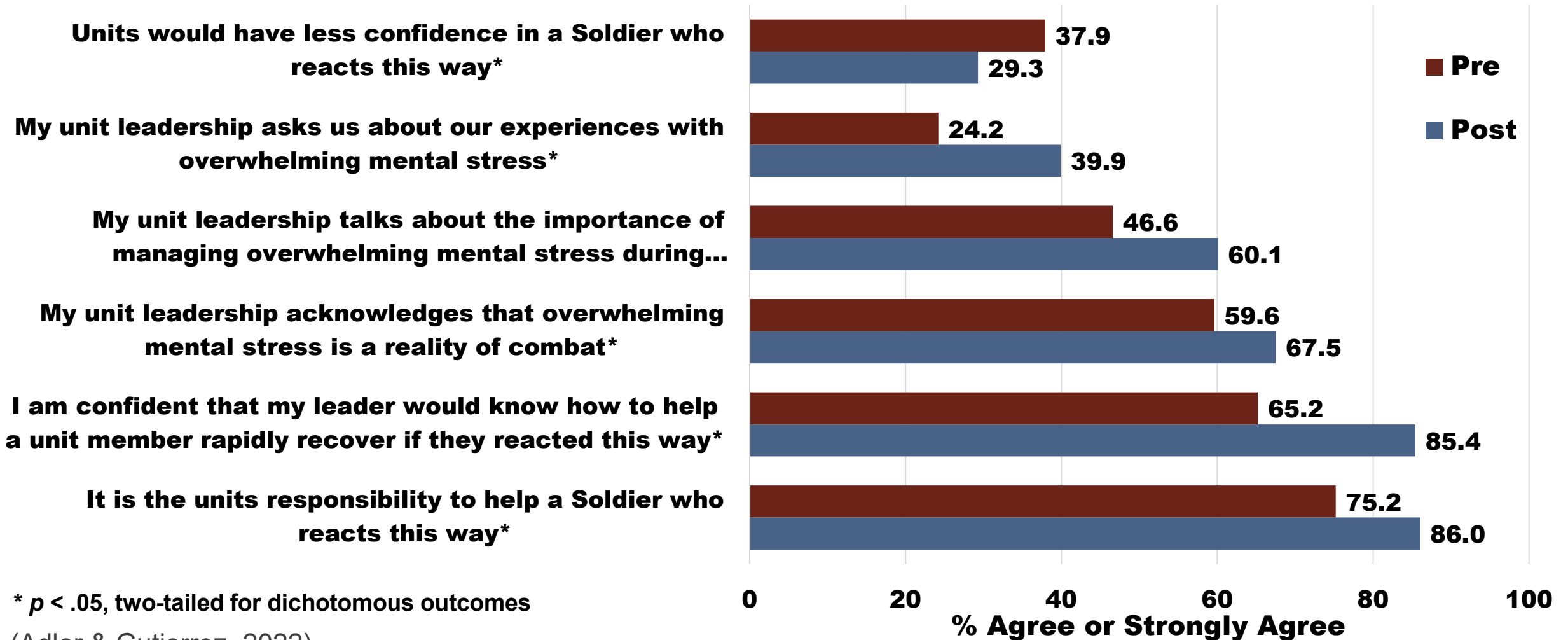
(Adler & Gutierrez, 2022)

Attitudes about ASR



(Adler & Gutierrez, 2022)

Leadership



Research Question: Impact of YaHaLOM

- How do trained Soldiers differ from untrained Soldiers?
- Does YaHaLOM moderate the impact of witnessing ASR in team members?
- What do case studies from the IDF experience suggest?

YaHaLOM: Initial Survey

- Soldiers with YaHaLOM had better
 - Knowledge
 - Confidence
 - External stigma (“Soldiers with ASR are weak”)
 - Normative view

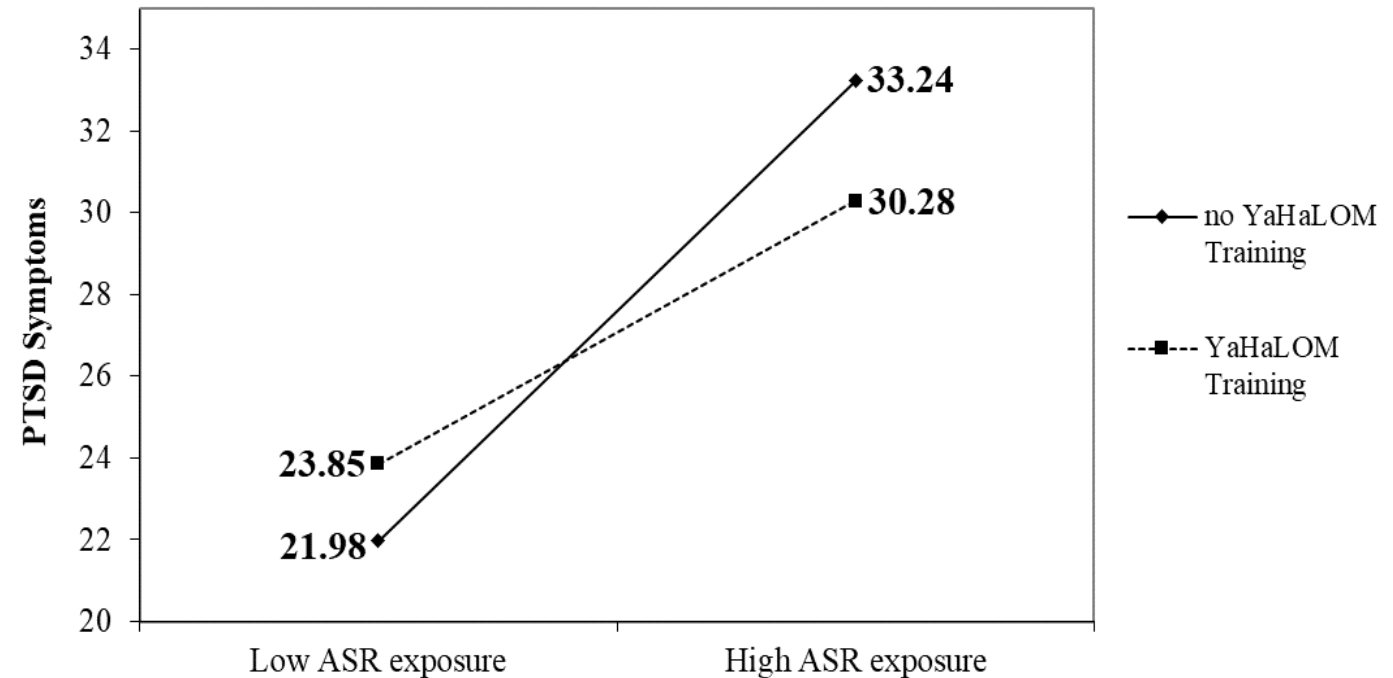
Table 2
Means of YaHaLOM Training Outcomes Across Soldiers Who Were Trained With and Without Video

Training outcomes	Video (<i>n</i> = 348)			No video (<i>n</i> = 344)			<i>t</i>	<i>df</i>
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>		
Knowledge about managing ASRs ^a	7.91	2.32	348	7.63	2.51	344	1.52	690
Confidence in managing ASRs ^b	3.66	.80	338	3.37	.80	337	4.72 ^{***}	637
Self-stigma ^b	2.19	1.12	348	2.42	1.07	343	-2.83 ^{**}	689
External stigma ^b	1.64	1.04	332	1.70	1.03	332	-.75	662
Normative view of ASR ^b	3.70	1.37	329	3.68	1.28	332	.18	662

(Svetlizky et al., 2020)

YaHaLOM: Moderating Effects

- Cross-sectional survey of IDF personnel
- Gold-Standard Training (via video) vs. No Training
- Training X ASR exposure predicts PTSD symptoms



(Svetlitzky et al., 2020)

YaHaLOM: Case Studies

Context	Intervener	Comment
Checkpoint Injury	Unit Member	Returned to functioning immediately
Tank Overturned	Tank Commander	Provided to 2 soldiers simultaneously, returned to duty
Firefight	NCO	Some of the steps completed, soldier evacuated
300 Cadets Attacked	Trained Cadets	Able to move cadets to safety
Shooting at Vehicle	NCO	Repeated portions of steps, delayed return to functioning

NCO- Non-commissioned officer

(Svetlitzky et al., 2019)

Implementation



U.S. ARMY

(army.mil)



U.S. AIR FORCE

(af.mil)

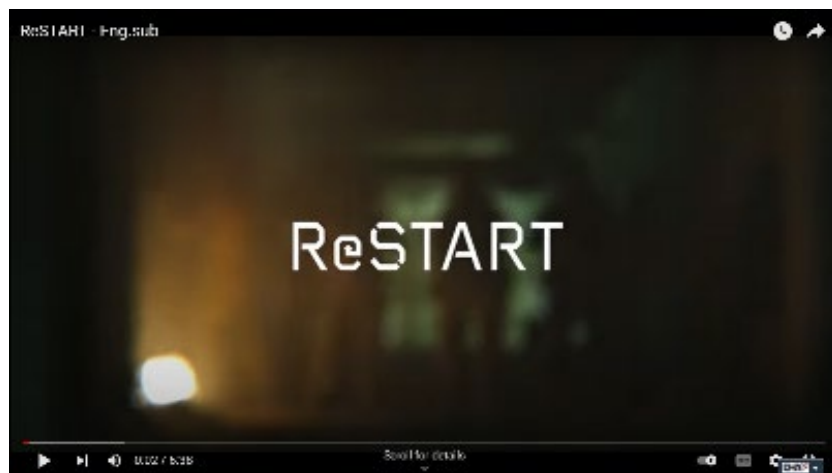


**A M E R I C A ' S
NAVY**

(navy.mil)

Other Nations: Examples

(forsvaret.no, n.d.)



Norway

(Bundeswehr.de, n.d.)



Germany

(forces.ca, n.d.)



Canada

Scope

Country	Evaluation	Roll-Out	Name	Comment
Israel	X	X	YaHaLOM	Original
Australia				In discussion
Canada	X	X	Back from the Black (C-C-C)	Simplified into 3 steps – but points still covered; Added follow-up step
Germany		X	BESSER	Same procedure as YaHaLOM but added two “request action” steps: simple and complex
New Zealand				In discussion
Norway	X	X	ReSTART	Same steps as iCOVER-US
UK	X	X	iCOVER	Same steps as iCOVER-US
US	X	X	iCOVER	Added “i”, emphasized rationale, added “amygdala hijack”, placed within TCCC

Subtitles/dubbing: French, Dutch, Spanish, Ukrainian

Ukraine

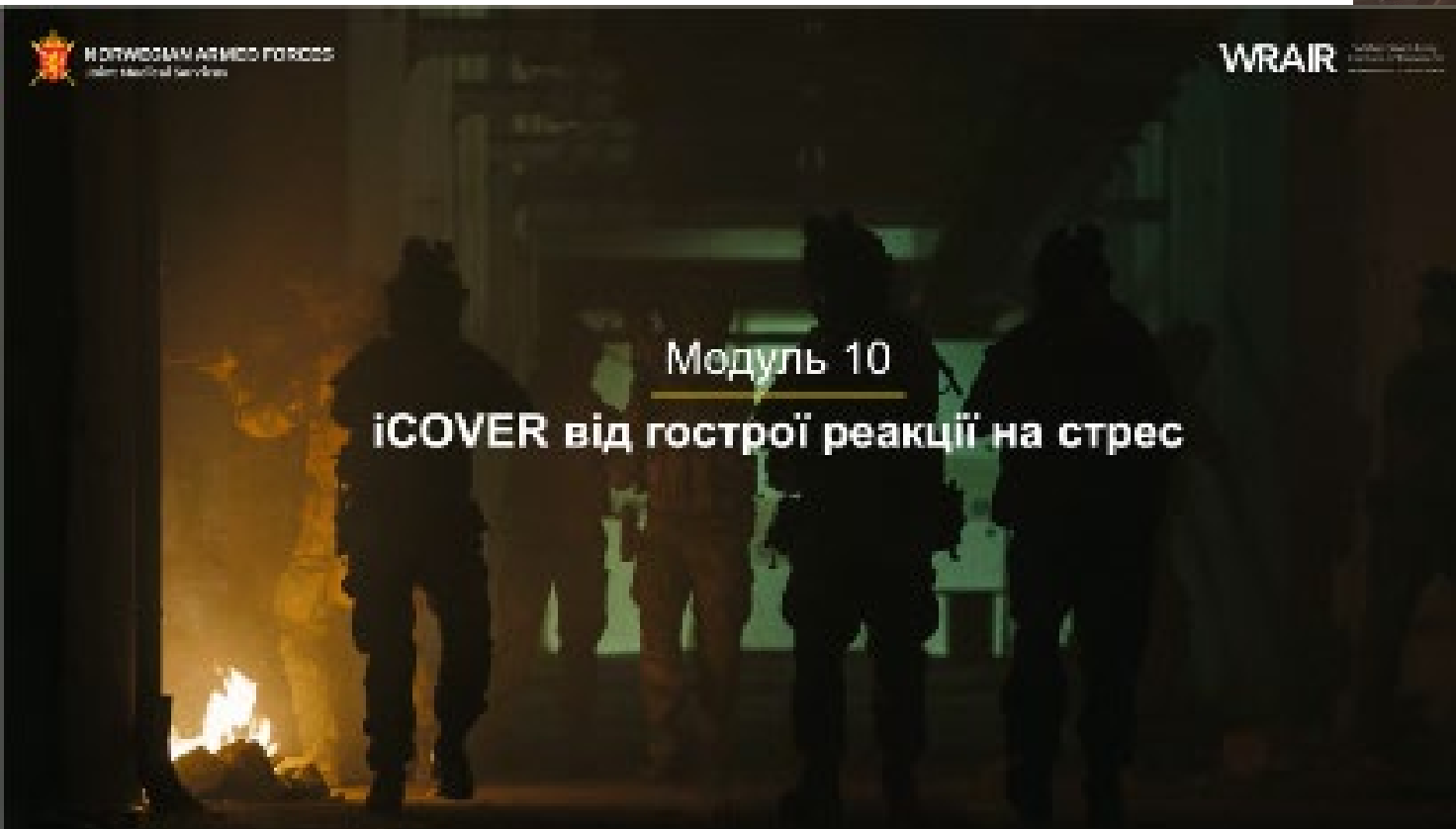


NORWEGIAN ARMED FORCES
Joint Medical Services

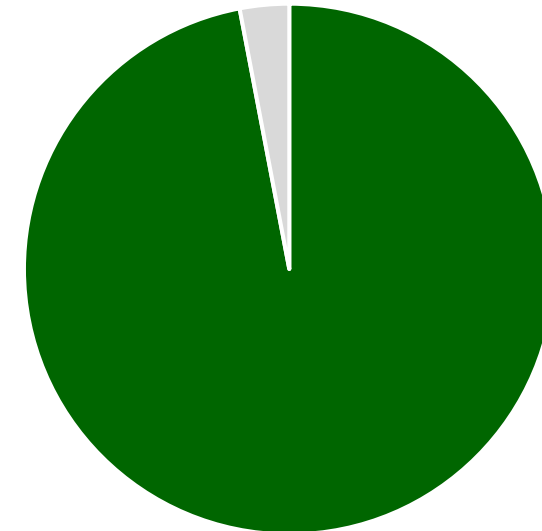
Operation Gungne



(forsvaret.no, n.d.)



iCOVER



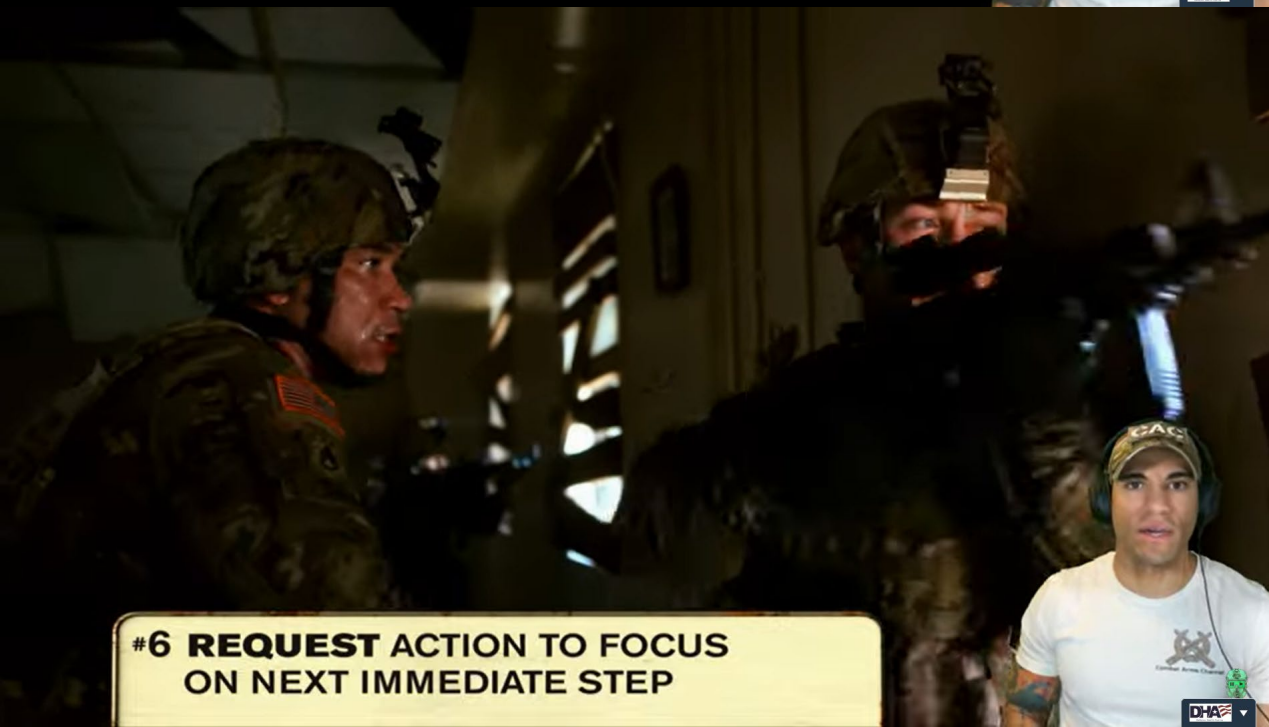
97% Rated
iCOVER
“Good” or
“Very Good”

(WRAIR, n.d.)

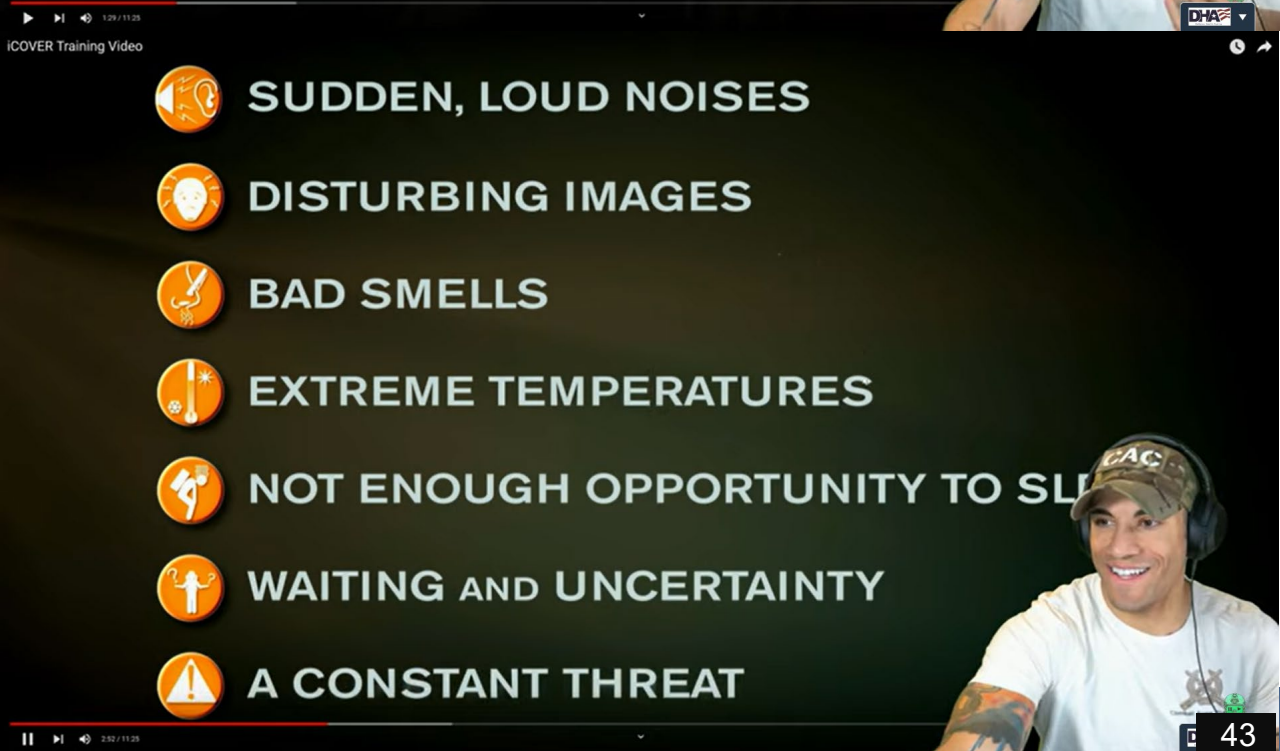
(WRAIR, n.d.)

iCOVER

PROTOCOL FOR ACUTE STRESS REACTION



#6 **REQUEST ACTION TO FOCUS ON NEXT IMMEDIATE STEP**



SUDDEN, LOUD NOISES



DISTURBING IMAGES



BAD SMELLS



EXTREME TEMPERATURES



NOT ENOUGH OPPORTUNITY TO SLEEP



WAITING AND UNCERTAINTY



A CONSTANT THREAT

COVID-19 iCOVER-Med

RAPID PEER-BASED MANAGEMENT OF ACUTE STRESS IN MEDICAL TEAMS



WHAT IS iCOVER-Med?

iCOVER-Med is a rapid, peer-based response to help manage acute stress in team members and return the team back to a high level of functioning.

Health care workers providing treatment to patients during COVID-19 are serving under high-stress/high-stakes conditions. In this unprecedented context, health care workers on the front lines may encounter team members who are overwhelmed by stress.

When an individual becomes completely overwhelmed by stress, they may experience an Acute Stress Reaction. An Acute Stress Reaction can prevent a member of a medical team from functioning, which can impede the delivery of patient care and exacerbate team stress.

While an Acute Stress Reaction can resolve itself over time, teams that rely on one another to be effective in the moment need a way to immediately manage acute stress in others.

RECOGNIZE THE SIGNS OF ACUTE STRESS REACTION

Know the following possible signs of an Acute Stress Reaction:

- *Appearing "frozen" and detached from what is happening*
- *Showing extreme emotion (panic, fear, anger)*
- *Behaving erratically, such as dropping equipment or acting without regard to danger*

The common denominator is that the person stops functioning for a period of time

HOW YOU CAN HELP

Help your teammate return to functioning by using iCOVER-Med, a six-step protocol that can be completed in under 60 seconds. iCOVER-Med, based on a protocol developed by the Israel Defense Forces and adapted by the Walter Reed Army Institute of Research, has excellent user acceptability, is easy to learn, and is linked to better outcomes for military units.

- Identify** the team member who is having an Acute Stress Reaction
- Connect** to bring them to the present moment (eye contact, touch, hearing)
- Offer** commitment to reduce sense of isolation
- Verify** facts with simple questions to get the thinking brain back in gear
- Establish** order of events to reorient the individual
- Request** action to re-engage in purposeful action

iCOVER-Med IN ACTION

STEPS	PURPOSE	ACTION	EXAMPLE
Identify	See if team member needs help	Make sure there's not a physical reason for their presentation.	Team member is having trouble functioning—they may appear frozen, non-responsive, dissociated, or agitated.
Connect	Return to present moment	Make eye contact, talk, touch arm.	"Look at me. Can you hear me? I'm going to squeeze your arm, you squeeze mine back."
Offer commitment	Reduce sense of isolation	Remind them they are not on their own.	"I'm right here with you, I'm not going anywhere. You are not alone."
Verify facts	Get thinking brain back in gear	Ask 2-3 simple, fact-based questions.	"What hospital are we in?" "Who is the attending for this patient?" "What illness are we treating here?"
Establish order of events	Reorient the individual	Using simple statements, explain what happened, what is happening, and what will happen.	"We came on shift. We are putting on our PPE. We have to go take care of our patients."
Request action	Re-engage in purposeful action	Make a simple request to get them engaging in action.	"I need you to secure your face shield. Let's go!"

FAQs

What's going on when someone has an Acute Stress Reaction? Under extreme stress, the amygdala hijacks the brain and prevents the pre-frontal cortex—the thinking part of the brain—from functioning.

What tone of voice should I use when going through the iCOVER-Med steps? Be authoritative and clear. Don't be overly emotional and don't yell at them—the emotion part of their brain (the amygdala) is already overloaded.

What if I do the steps out of order or miss a step? Keep going and if it doesn't work, re-start the steps.

What if the person doesn't respond to me? Move them out of the way for safety and, depending on the situation, ask for additional help for the patient and the team member.

How often am I likely to see someone go through acute stress? About 40% of Soldiers report seeing a team member in combat experience an Acute Stress Reaction. Medical care isn't combat, but acute stress may be experienced under extreme conditions.

How is this relevant to COVID-19? Maximizing and preserving healthcare provider effectiveness is a crucial part of the fight against COVID-19. This adapted version is designed to support medical teams continue their dedicated response on the front lines of the pandemic.



Selected references: Adler, A. B. et al. (2019). Rapid response to acute stress reaction: Pilot test of iCOVER training for military units. *Psychological Trauma: Theory, Research, Practice, and Policy*. Advance online publication. | Svetitzky, V. et al. (2019). YaHaLOM: A rapid intervention for Acute Stress Reactions in high-risk occupations. *Military Behavioral Health*, 1-11. | Svetitzky, V. et al. (2019). Rapid peer-based intervention for acute stress: Evaluation of YaHaLOM training in the military. *Psychological Services*. Advance online publication.

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HEREIN ARE THE PRIVATE VIEWS OF THE
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9 APR 2021

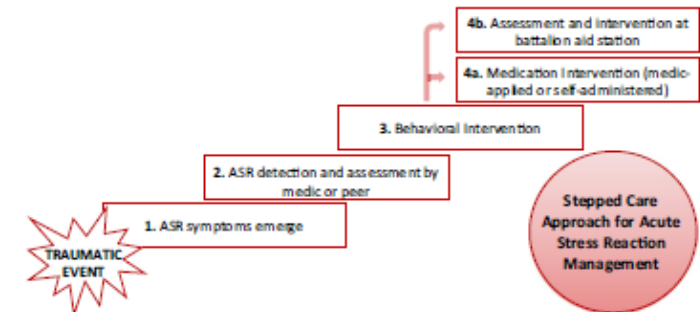
(WRAR, n.d.)

Next Steps

- UNC-Chapel Hill's (Dr. Sam MacLean)
 - Randomized Controlled Trial in the Emergency Department
 - Developing a measure for rapid administration in medical contexts
- Consulting with international counterparts
- Establishing recommendations for what to do if iCOVER doesn't work (Dr. Emily Lowery-Gionta)
- Establishing the relevance of psychology in ensuring readiness



Current Psychiatry Reports



(Adler et al., 2023)

Key Takeaways

- An acute stress reaction (ASR) is primarily characterized by difficulty in functioning, placing individuals and teams at heightened risk
- iCOVER training is well accepted by members of operational units
- Research on iCOVER training has found it is associated with improved knowledge, positive attitudes, and confidence

Point of Contact

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Questions?

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3. Click on the REGISTER/TAKE COURSE tab.
 - a. If you have previously used the CEPO CMS, click login.
 - b. If you have not previously used the CEPO CMS click register to create a new account.
4. Follow the onscreen prompts to complete the post-activity assessments:
 - a. Read the Accreditation Statement
 - b. Complete the Evaluation
 - c. Take the Posttest
5. After completing the posttest at 80% or above, your certificate will be available for print or download.
6. You can return to the site at any time in the future to print your certificate and transcripts at: <https://www.dhaj7-cepo.com/>
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