

Moral Injury and Killing in Combat Veterans: Research and Clinical Implications

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Poll Question



- What is your primary role in VA?
 - student, trainee, or fellow
 - researcher
 - clinician
 - manager or policy-maker
 - other

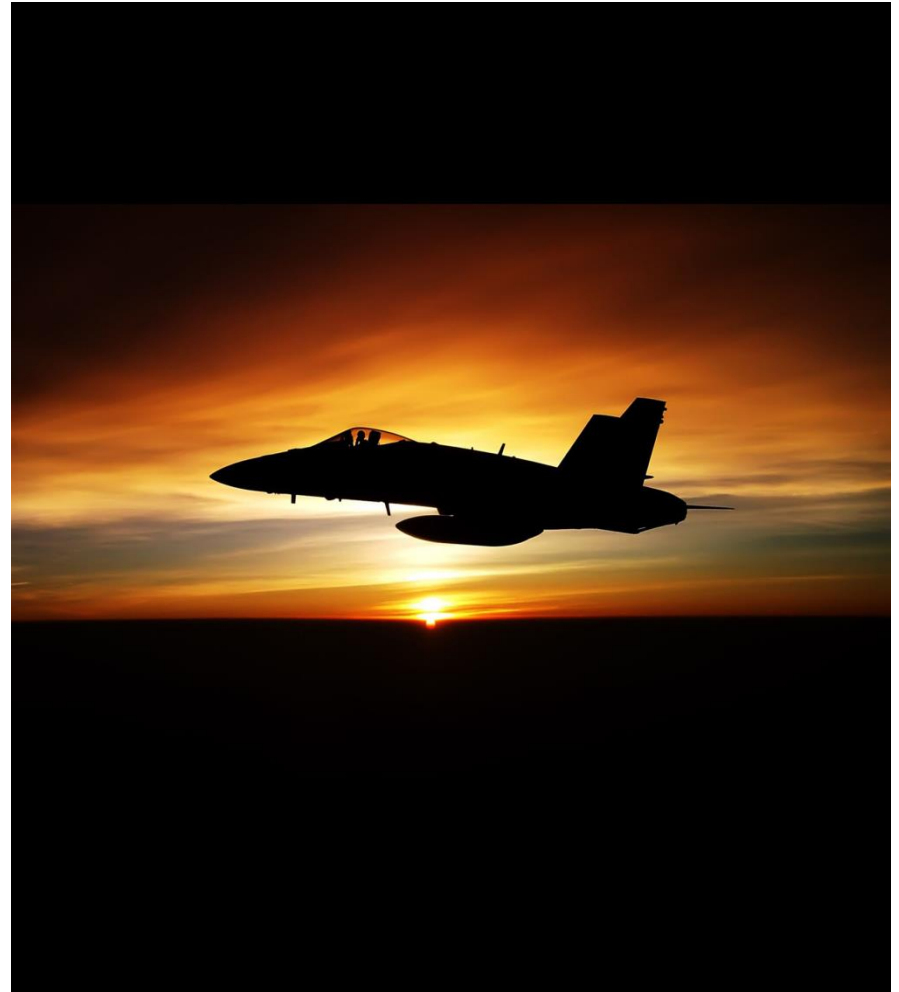
Background



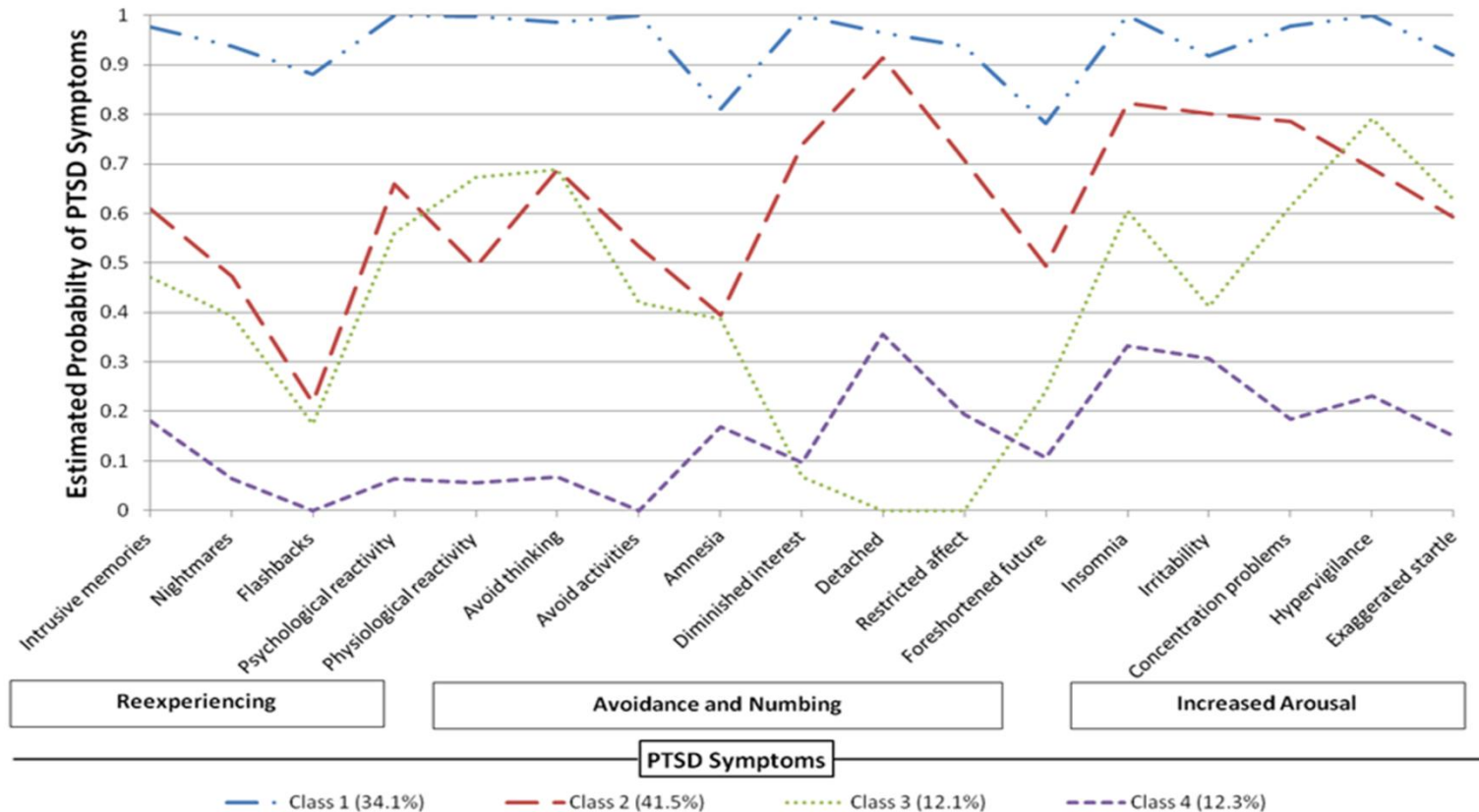
- 77% to 87% of Operation Iraqi Freedom (OIF) soldiers reported directing fire at the enemy
- 48% to 65% reported being responsible for the death of an enemy combatant
- 14% to 28% reported being responsible for the death of a noncombatant.

Background

- Veterans from multiple eras who kill in war are at increased risk for PTSD, alcohol abuse, suicide, and functional difficulties after returning home.
- Killing is not routinely assessed by VA and DoD, and there is not a clear treatment trajectory post EBT for those who continue to be impaired by killing.



Probability Plot of Endorsing PTSD Symptoms by Latent Class



Classes represent empirically derived groups based on patterns of PTSD symptoms: **Class 1** (34.1% of those with PTSD) represents a high probability of all PTSD symptoms; **Class 2** (41.5% of those with PTSD) represents a moderate probability of most PTSD symptoms, with spikes in emotional numbing (detachment, restricted affect) and arousal symptoms (insomnia, irritability, concentration). **Class 3** (12.1% of those with PTSD) represents a moderate probability of most PTSD symptoms, with troughs in emotional numbing (detachment, restricted affect) and arousal symptoms (insomnia and hypervigilance). **Class 4** (12.3% of those with PTSD) represents those with a low probability of most PTSD symptoms.

Class	Percent of subjects who killed in war
Class 1	45%
Class 2	30%
Class 3	17%
Class 4	8%

IMPACT OF KILLING FOCUS GROUPS

The Dark Side of the Self

“Seeing the dark side of the self”

“You kind of feel like a monster... What I am capable of doing is what scares me.”

“It kinda brings into mind the question of who you are as a person and what you’re capable of; it brings a lot of insecurity”

“Calloused reaction to death”

Secrecy & Stigma: Withdrawal

“I always thought that if I talked about some of those things, then people on the street would think that I was completely crazy. And that was reinforced because the media, the crazy Vietnam vets... they’re “baby killers”... It was better not to tell anybody.”

“You can’t speak it out because you don’t know who you’re gonna talk to – what’s gonna happen if you let your emotions or feelings out.”

“I know they wanted to ask me that question, especially my father – but, you know, from the look of his face, he wants to know. At the same time I read in his face that he’s kinda scared of what I would tell him.”

“Putting it on the back burner.”

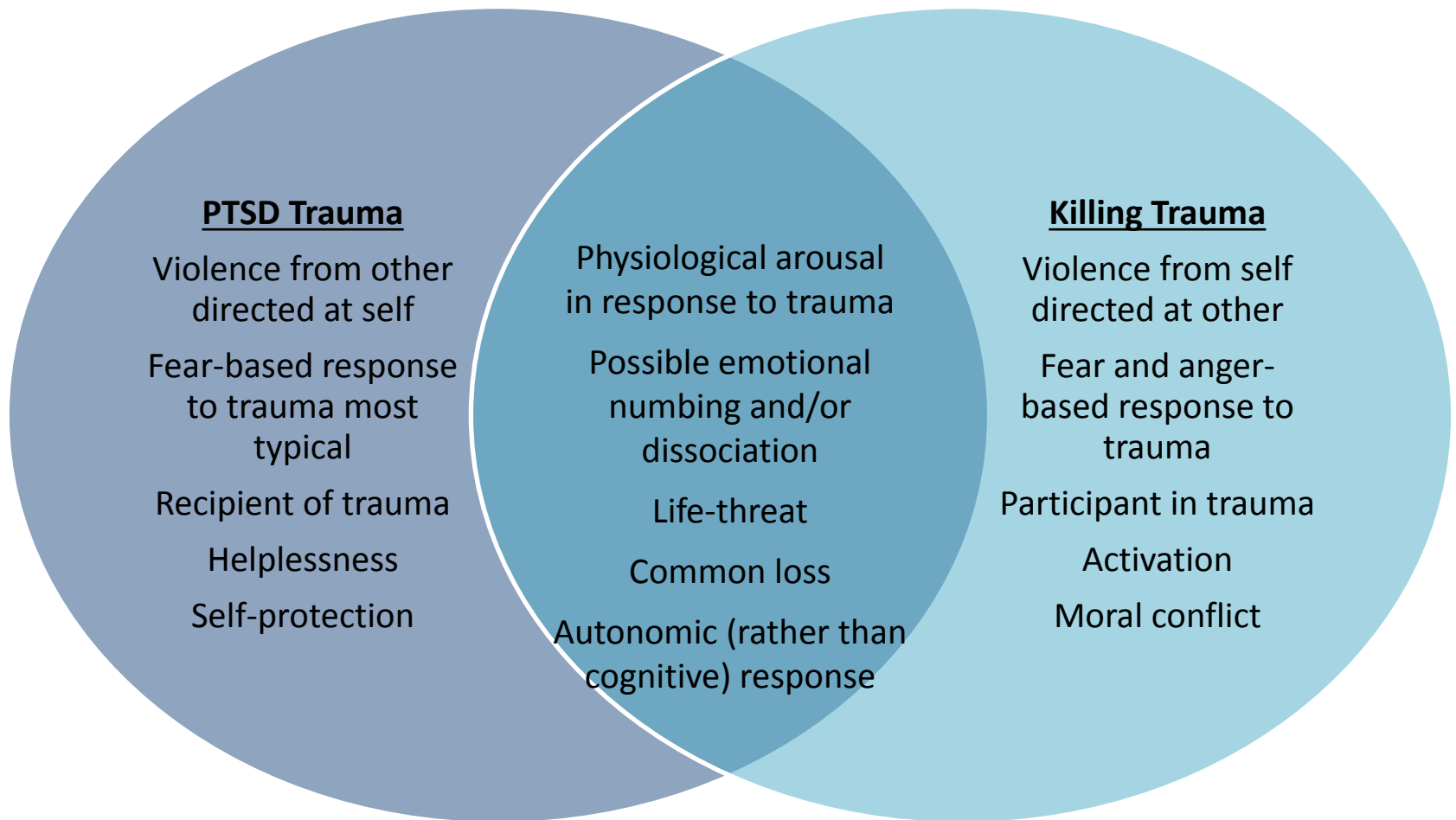
Morality

“Your morality gets tossed out the window... Same thing with religion, because I think once you start thinking about it: *Boy, I can't do this because this is against everything I've been taught or believed in since I was a young person...* When you start thinking about the moral issue, you'll be dead. You don't have time to think about those things. You just do it.”

“But then you have to come back and you have to think about that later on and what you're responsible for, and that's very hard. That comes back to haunt me all the time.”

“I think you feel ashamed of what you did. You know you're trained to do that and it just stays with you. I guess I feel very sad sometimes. I feel proud to be a soldier who tried to do something that I thought was right for the country. But it's hard to be a soldier. It tears away from your moral fiber. It changes your life.”

Conceptual Model of PTSD-based Trauma and Killing Trauma

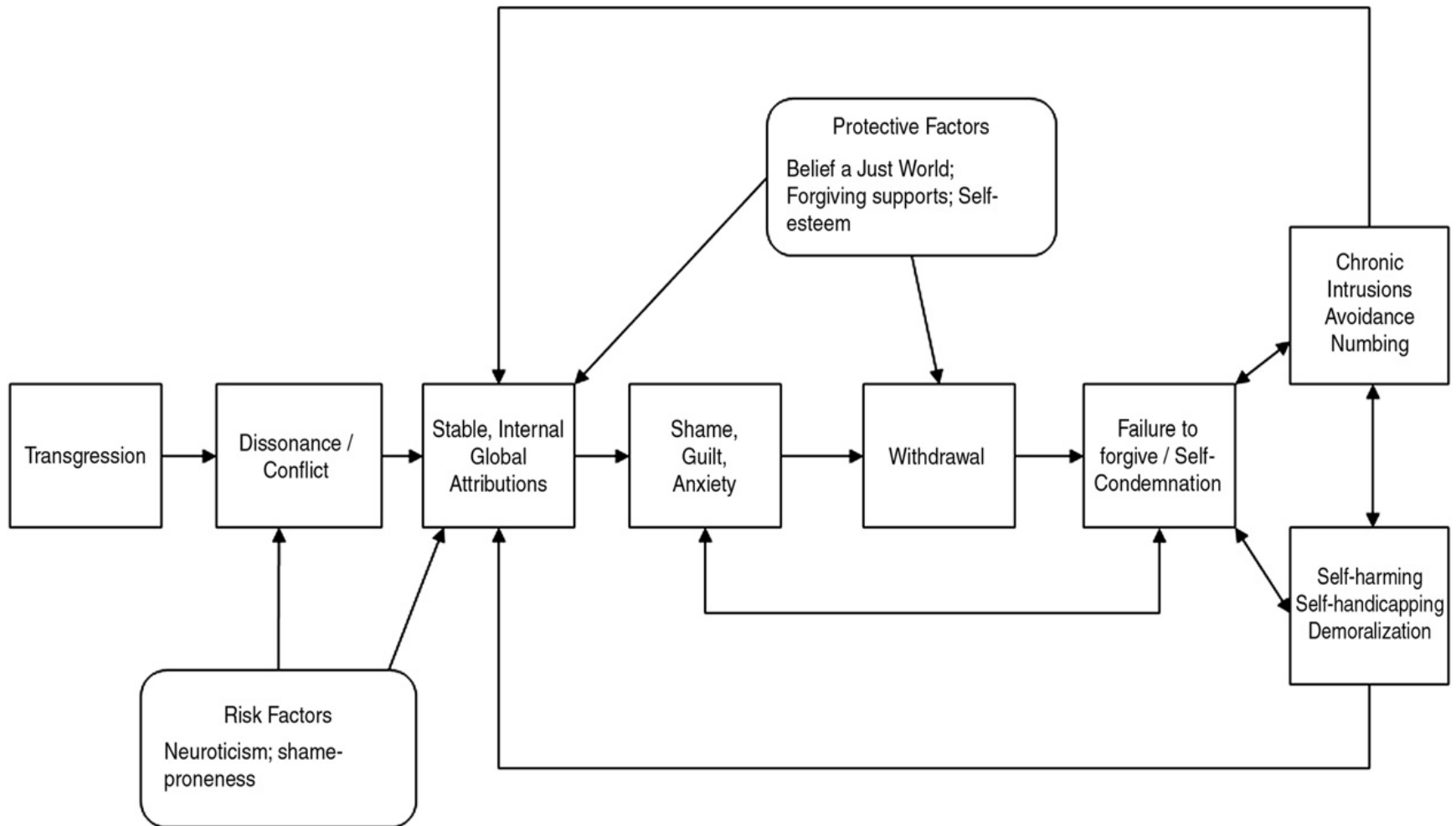


Moral Injury Definition



- Perpetrating, failing to prevent, bearing witness to, or learning about acts that transgress deeply held moral beliefs and expectations.
- Moral injury requires an act of transgression that contradicts personal or shared expectation about the rules or the code of conduct, either during the event or at some point afterwards.

Causal Framework for Moral Injury



Killing Treatment: Impact of Killing Module



- CBT treatments provide a helpful base for killing treatment module, particularly when debilitating cognitions exist
- Killing treatment module designed to be used *after* vets have done some work talking about trauma
 - Does not have to be their killing-related trauma

Treatment Study Description

- Goal: to test feasibility, acceptability, and efficacy of a treatment module addressing the mental health and functional impact of killing in a war zone
- Participants randomly assigned to treatment or waitlist condition
 - Treatment available following waitlist
- 6- 8 sessions of individual psychotherapy
 - 60- 90 minutes each week
- Participants also asked to:
 - complete assessment measures
 - provide feedback re: the treatment



Eligibility Criteria



- Veterans 18-80 years of age who served in a combat zone
- **Completed trauma-focused individual or group psychotherapy (e.g. CPT, PE)**
- Impacted by killing in combat, or by feelings of responsibility for the death of others in combat (i.e. officers, medics)
- Ideally, abstinent from all substances
 - If not, willing to engage in harm reduction contract while active in study
- Not currently engaging in self-harming behaviors or in active crisis (e.g. homeless)

Treatment Overview

Session	Focus	Content
1	Pre-Treatment Evaluation	Assessment, Barriers to Treatment, and Coping Skills
2	Common Responses to Killing	Physiology, Emotions, and Cognitions
3	Cognitive-Behavioral Therapy (CBT) Elements	CBT Framework, Meaning of Killing, and Killing Cognitions
4	Becoming Unstuck *	CBT and Maladaptive Killing Cognitions (continued)
5	Forgiveness *	Defining Forgiveness and Barriers to Self-Forgiveness
6	Taking the Next Step	Forgiveness Letter, Making Amends, and Maintaining Gains

** Sessions 4 & 5 are often extended*

Measures

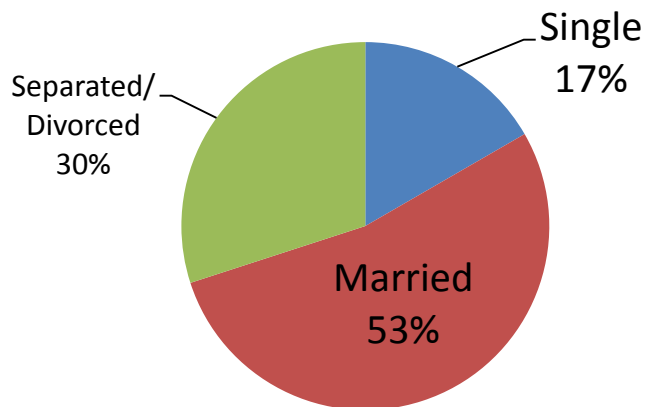


- Demographics
- PTSD symptoms; PTSD Checklist (PCL)
- Brief Symptom Inventory
- Killing-related maladaptive cognitions; Killing Cognition Scale (KCS)
- Post-treatment measure indexing change in Impact of Killing (IOK) treatment-related themes
- Acceptability and Feasibility Questionnaire

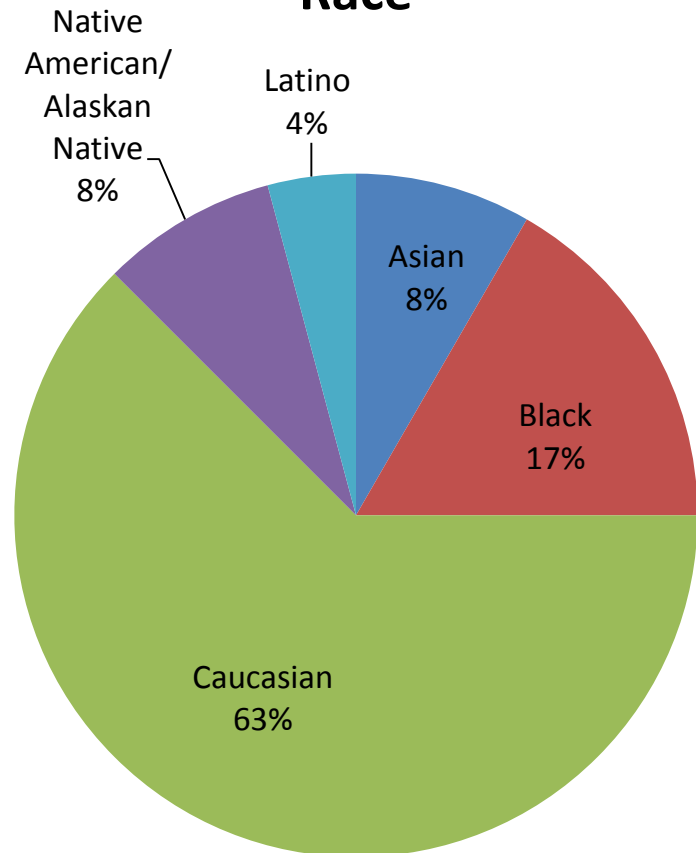
Demographics

- N = 30
- **Age:** 59.9 ± 13.4 (SD)
- Age range 26-80 years
- **Gender:** 100% male

Relationship Status

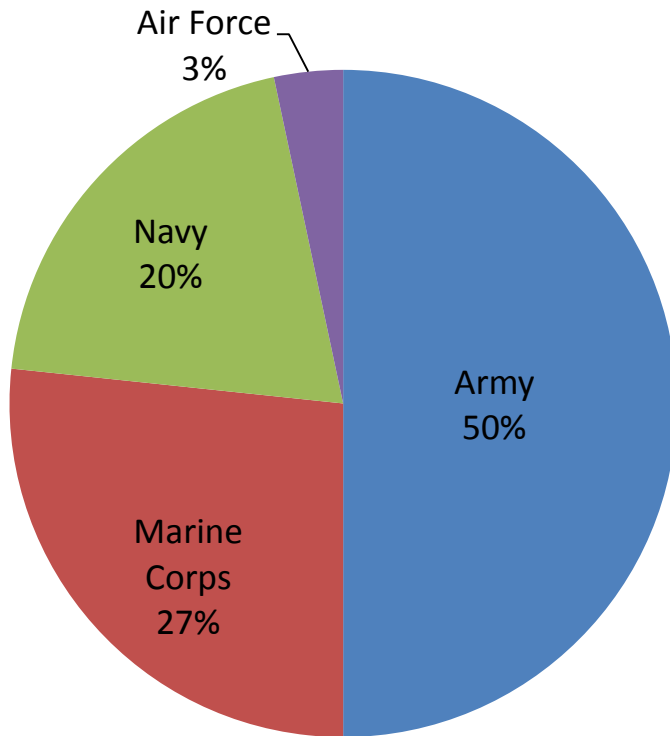


Race

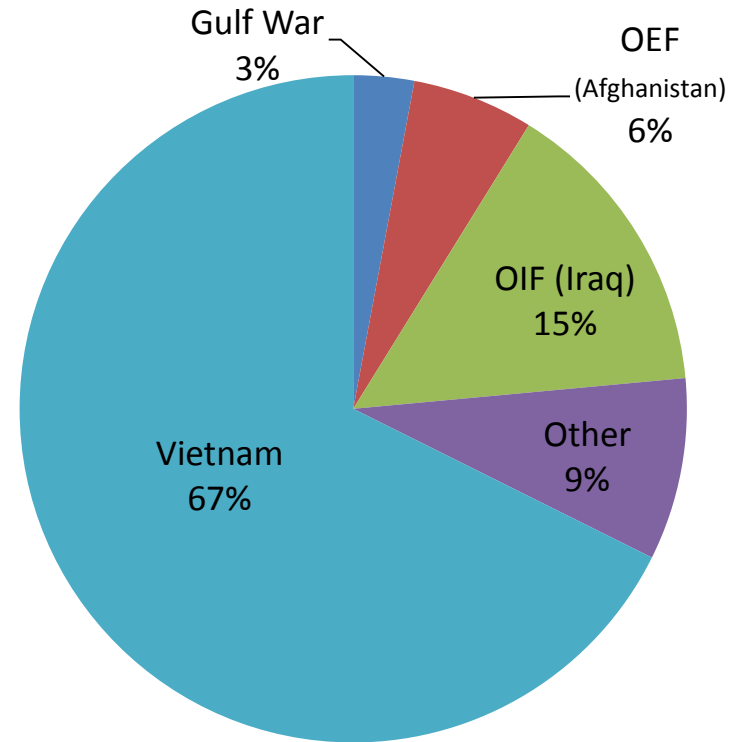


Military Service

Service Branch



Operation



IOK: Descriptive Statistics

Variable	Mean \pm SD	Median (min-max)
1. I find that I have more compassion for myself.	4 \pm 1.11	4 (2-5)
2. I feel more comfortable with how I responded to killing.	3.74 \pm 1.28	4 (1-5)
3. I have a better understanding of the factors that contributed to killing.	4.21 \pm 1.08	5 (2-5)
4. I feel closer to my family.	3.05 \pm 1.47	3 (1-5)
5. I feel closer to my fellow veterans.	3.95 \pm 1.18	4 (1-5)
6. My relationship with spirituality feels less troublesome.	3.22 \pm 1.66	3.5 (1-5)
7. I feel more connected with society.	2.89 \pm 1.37	3 (1-5)
8. I am more accepting of myself.	3.95 \pm 1.31	5 (1-5)
9. I have a better understanding of what self-forgiveness means to me.	4.16 \pm 1.17	5 (1-5)
10. I am more self-forgiving.	3.74 \pm 1.41	4 (1-5)
11. I recognize the process of healing is ongoing.	4.68 \pm 0.671	5 (3-5)
12. I feel there are specific things I can do to continue healing.	4.79 \pm 0.535	5 (3-5)
13. I am more accepting of different aspects (parts) of myself.	4.47 \pm 0.905	5 (2-5)

AFQ: Descriptive Statistics

Variable	Mean \pm SD	Median (min-max)
1. The six to eight session treatment was just the right length.	3.33 \pm 1.33	4 (1-5)
2. I wish the treatment had been longer.	4.3 \pm 1.17	5 (1-5)
3. The content areas covered were just right.	4.3 \pm 0.953	5 (2-5)
4. There were other content areas I wish had been included.	2.89 \pm 1.12	3 (1-5)
5. We spent the right amount of time on each content area.	4.19 \pm 0.921	4 (2-5)
6. I would recommend this treatment to a friend who was dealing with similar issues.	4.89 \pm 0.32	5 (4-5)
7. I feel like I benefitted from this treatment.	4.89 \pm 0.32	5 (4-5)
8. This treatment provided new information.	4.78 \pm 0.424	5 (4-5)
9. This treatment taught me new skills.	4.59 \pm 0.694	5 (3-5)
10. This treatment provided new ways of approaching problems or struggles.	4.48 \pm 0.753	5 (3-5)
11. This treatment did not seem like too big of a burden.	4 \pm 1.33	4 (1-5)
12. I was able to tolerate this treatment well.	4.5 \pm 0.793	5 (2-5)

Discussion: Initial Findings



- Improvement in PTSD symptoms
- Shifts in killing-related cognitive domains, including
 - Self-concept
 - Spirituality
 - Self-forgiveness
 - Meaning
 - Functional domains (e.g., relationships).
- Treatment focused on the impact of killing is conceptualized as supplementary rather than as a replacement for existing EBTs for PTSD.

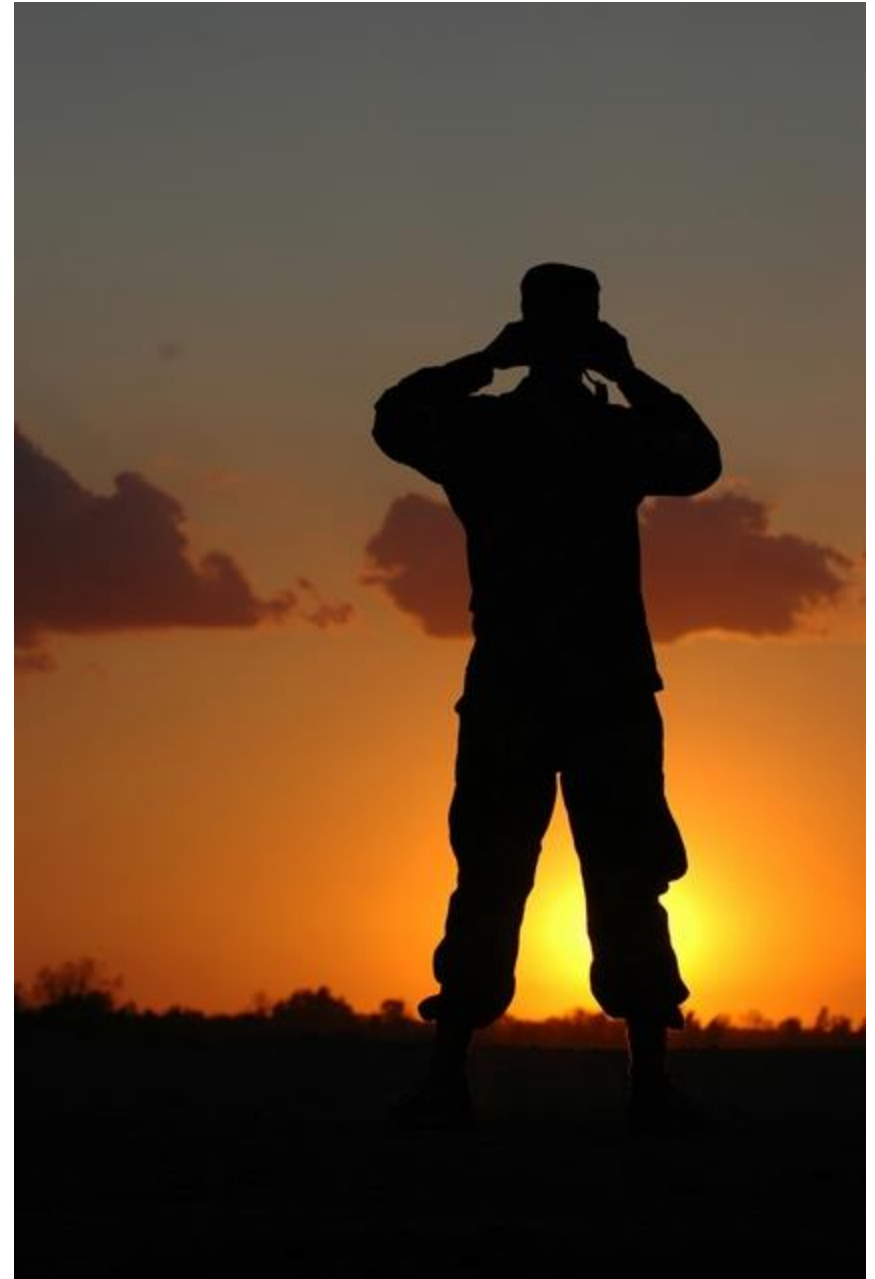
Discussion: Veteran Feedback

- Veteran self-assessment of areas of growth include (among others):
 - Acknowledgement that healing is an ongoing process
 - Greater self-acceptance and self-integration
 - Greater self-forgiveness
 - Increased self-compassion
 - Greater self-acceptance
 - Increased understating of killing events of the past
- Veterans reported that the 6-8 session treatment was acceptable and feasible in multiple domains.



Thank You

- Thanks to all of the Veterans that participated in this research and shared their stories and experiences with us.
- We would like to thank Kristine Burkman, Ph.D., Erin Madden, MPH, Julie Dinh, BA, Jessica Keyser, PhD, Jeane Bosch, MPH, Martha Schmitz, PhD, Thomas Neylan, MD, Rosemary Griffin, MPH, Peter Yeomans, PhD, SFVAMC PTSD clinicians, and the many others who provided referrals and feedback, without whom this work would not be possible.
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Questions or Comments?

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