Moral injury as a lesser known risk factor for suicidal behavior among military, veterans, and law enforcement officers

Conceptualizing and Intervening on Moral Injury

Lauren M. Borges, Ph.D.
Clinical Research Psychologist
VA Rocky Mountain MIRECC for Veteran Suicide Prevention
Lauren.Borges2@va.gov
Acknowledgements

- Sean Barnes, Jacob Farnsworth, Robyn Walser, Kent Drescher, Lisa Brenner, Nazanin Bahraini, Wyatt Evans, Craig Rosen, Jason Nieuwsma, and Joseph Currier.

Funding

- Work associated with this presentation has been made possible by a grant from VA Rehabilitation Research and Development (1I01 RX002854-01A1) and additional support from the Rocky Mountain MIRECC.

Disclaimer

- This presentation is based on work supported by the Department of Veterans Affairs, but does not necessarily represent the views of the Department of Veterans Affairs or the United States Government.

Conflicts of Interest

- None to report.
Overview

1. Introduction to a conceptual model of moral injury

2. Background on the relevance of moral injury to suicide prevention among Service Members, Veterans, and Health Care Providers

3. A case study demonstrating an application of ACT-MI for a Service Member experiencing suicidal ideation with a history of multiple suicide attempts
Conceptual Model of Moral Injury
Moral Injury Model

- I feel betrayed by leaders who I once trusted
- I saw/was involved in the deaths of children
- There were times when I engaged in revenge/retribution for things that happened
- I am troubled by having witnessed others’ immoral acts
- I did things in war that betrayed my personal values
- I violated my own morals by failing to do something I felt I should have done

Farnsworth et al., 2017
Moral Injury Model: Veteran Perpetration Vignette

Moral Injury

Chronic heroin use

Multiple suicide attempts

Discontinuing showering

Shame

Embarrassment

Anger at self

Urges to isolate

“I am a monster”

“I deserve to suffer”

“I don’t deserve any relationships”

Disengagement from intimate relationships

Discontinuation of religious practice and avoidance of religious family members

Binge eating

Farnsworth*, Borges*, Drescher & Walser, 2019

*Both authors contributed equally to this manual
Moral Injury Model: Perpetration, ACT of Omission

Morally Injurious Event:
A Veteran witnesses a rape between an Afghan elder and a female villager while on patrol. He calls command as he is in a position to intervene. He is told multiple times not to intervene. He does not intervene and the woman is raped and killed. He witnesses the entirety of this scenario.

What might his moral pain look like?
Shame, embarrassment, anger at self, “I should have done more”

How would we know if he struggles with moral injury?
Hides from others by isolating, uses heroin to numb, physical altercations related to protecting others, complete disconnection from spirituality (raised in a religious family), disengagement from intimate relationships, binge eating, multiple suicide attempts
Moral injury and Suicide Prevention in Service Members, Veterans, and Healthcare Workers
Why is moral injury relevant to suicide prevention? Service Members and Warzone Veterans

Prevalence of morally injurious events among warzone Veterans:

- 27% of soldiers endorsed facing dilemmas to which they were unsure of how to respond (MHAT-V, 2008b)
- 11% acknowledged engaging in morally transgressive events while deployed, 26% of Veterans reported transgressions by others, and 26% reported moral betrayal (Wisco et al., 2017)

Exposure to morally injurious events as a risk factor for:

- Substance use (Battles et al., 2018; Kelley et al., 2019)
- Depression (Currier et al., 2014)
- PTSD (Bryan et al., 2018; Maguen et al., 2010)
- Suicidal ideation and behavior (Bryan et al., 2018; Kelley et al., 2019)
Why is moral injury relevant to suicide prevention?
Service Members and Warzone Veterans

- Exposure to morally injurious events (MIEs) is a risk factor for suicidal ideation and behavior in Service Members and Veterans (Bryan et al., 2018; Bryan et al., 2015).

- 36% of Veterans who responded to National Health and Resilience in Veterans Study reported exposure to at least 1 MIE. MIE exposure was predictive of increased risk for suicidal behavior (suicidal ideation, lifetime suicide plan, and suicide attempt) above and beyond severity of combat exposure, PTSD, and depression (Nichter et al., 2021).

- Self and other directed moral injury expressions (Expressions of Moral Injury Scale) strongly associated with suicidal ideation, relationship between self-directed moral injury and suicidal ideation was strengthened at higher levels of self-judgment (Kelley et al., 2019).

- Firing a weapon and killing in combat are associated with suicidal ideation in OEF/OIF Veterans (Tripp et al., 2016).

- Evidence based psychotherapies for PTSD may not sufficiently target the pathways maintaining suffering in moral injury, causing suicidal ideation and behavior to persist. Treatments are needed that target moral injury and co-occurring suicidal behavior.
Why is moral injury relevant to suicide prevention? Healthcare Workers

• Moral injury outcomes reported in news articles early in pandemic:
  - Death by suicide of ER doctor, “she tried to do her job and it killed her” (Watkins, Rothfield, Rashbaum, & Rosenthal, 2020 April 27).
  - Person’s father died after contracting virus from him, “I just killed my dad. I gave this to my dad...It’s an odd feeling like you’re not at peace...you can’t rest because you’re still dealing with the guilt” (Schuppe, 2020 May 16).

• Moral injury outcomes reported in early research studies:
  - Conceptual papers about moral injury and COVID-19 (Borges et al., 2020a; Borges et al., 2020b; Haller et al., 2020; Maguen & Price, 2020)
  - In one study where prevalence of PMIEs were evaluated during the pandemic, almost 50% of physicians reported exposure to PMIEs (Matfei & Holman, 2021).
  - PMIEs associated with anxiety, depression, posttraumatic stress disorder (PTSD), burnout, sleep difficulties, and suicidal ideation and self-directed violence (Litam & Balkin, 2020; Mortier et al., 2021; Wang et al., 2021)
Data from a National Provider Study during COVID-19

- 211 healthcare providers (medical and mental health) were recruited nationally via an online survey.
- Exposure to morally injurious events and psychosocial functioning related to COVID-19 were assessed. We collected data monthly for 1-year and had sufficient power to analyze trajectories associated with 10-months of data.
- In particular, reported exposure to a PMIE was associated with significantly decreased improvements in psychosocial functioning.

Logarithmic change in psychosocial functioning over the course of 10 months during the COVID-19 pandemic based on PMIE exposure.

Borges et al., under review
ACT-MI Case Study (Borges, 2019)
De-identified Case Description

- Service Member consented to using the below information in presentations and publication. Information is de-identified to protect confidentiality.
- Service Member deployed to Afghanistan from 2008-2009 as a human intelligence collector.
- Received treatment for PTSD via Cognitive Processing Therapy. In addition to a history of PTSD, he reported a history of depression, suicidal ideation and behavior, and experienced abuse as a child.
- Scored 66 out of 80-points on the Moral Injury Questionnaire-Military version (MIQ-M) indicating significant exposure to MIEs (required to befriend members of terrorist organizations and use intelligence collected to take the lives of men, women, children).
- Early 30’s, married with two young daughters, family still practicing religion (he does not identify with this religion any longer).
- His friend attempted suicide midway through our course of treatment. Another friend died during the course of our work together.
- Goal for treatment to "take off the mask...it’s a lot easier to put on the mask than actually look at yourself and try to get better."
- Reported difficulties engaging with meaning in his life and feeling isolated.

Borges, 2019
Morally Injurious Event:
John was deployed to Afghanistan as a human intelligence collector. His job duties required him to befriend members of terrorist organizations. He used the information they gave him to take their lives. In the context of his work he realized most of these people were “normal and doing their best for their families.” These duties involved taking the lives of men, women, and children.

What might his moral distress look like?
*Shame, guilt, disgust*

How would we know if he struggles with moral injury?
*Disconnection from family because he “doesn’t deserve a family” after taking the lives of other families (particularly avoiding spending time with his children). Complete disengagement from spirituality (raised in a religious family), multiple suicide attempts and persistent suicidal ideation, disengagement from meaning at work, no longer showering because he is “dirty and doesn’t deserve to take care of [himself].”*
Moral Injury Model

Moral Injury

Disconnection from relationships
Disengaging from self-care
Discontinuing spiritual practice

Suicidal Ideation and Behavior
Avoids daughters
Workplace difficulties

Shame
Disgust
Guilt

Anger
Guilt

Self-blame thoughts
If people knew they would...

I deserve to suffer
I am tainted

Feels like vomiting
Urge to hide

Feels like vomiting
Urge to hide

Borges, 2019
How do we disrupt the patterns maintaining suicide in moral injury?

Interacts with daughter

Intense shame

I don’t deserve to be a dad

Isolate from family

If she knew what I did She would Be disgusted.

I killed so Many families

I will contaminate my kids

I should just die

Suicide attempt

I deserve to suffer

Nothing should matter In my life.

My family is better off without me

There is nothing good. No God.

I will contaminate my kids

Nothing should matter In my life.

My family is better off without me

Borges, Barnes, Farnsworth, Drescher, & Walser, 2020
Why ACT is a good fit for Moral Injury: ACT Core Processes

Open
Acceptance
Defusion

Aware
Present Moment
Self-as-Context

Engaged
Values
Committed Action
Recovering from Moral Injury

(Farnsworth*, Borges*, Drescher & Walser, 2019)
*Both authors contributed equally to this manual
Telehealth ACT-MI Session Content: De-Identified Case Study

• **Sessions 1 and 2**: values as a direction in living and creative hopelessness to facilitate motivation
  - In discussing constructing his values in the here and now he identified a desire to "reconcile my actions with my values"

"Most important" values identified as:
1. Importance of life/spirituality
2. Learning
3. Leaving things better than I found them

- Through opening up life to opportunities for reinforcement are accessible again
- To engage values, workability of efforts to avoid moral plain was explored

Borges, 2019
• **Sessions 3 through 5**: contacting the present moment, limitations of controlling moral pain

-In the tug of war: "**I can see the sergeant but I can’t see me.**" Reported experiencing fear, disgust, horror, and comfort in this scenario. He noticed urges to become the sergeant or abandon the sergeant noting that in either scenario "part of me dies."

Borges, 2019
• **Sessions 6 through 9:** observing and accepting moral pain and stories about himself

- Formerly a ballroom dancer, generated the metaphor of "ballroom dancing with my moral pain" to practice approaching his pain and holding it lightly while moving towards his values.
- Practiced observing stories related to his moral pain and identified the function of these stories "**we develop stories to hide our pain from ourselves and others.**“
- Started to engage in value of spirituality for the first time since childhood: "**I get a sense of spiritual fulfilment through helping others.**"
- "I don’t think the pain will ever go away and I’m not sure I want it to. I can mourn the losses I have experienced without lessening my own worth."

Borges, 2019
Telehealth ACT-MI Session Content: De-Identified Case Study

- **Sessions 10 through 12**: holding pain/stories about myself and others lightly for the sake of my values. Not only stepping back from stories but holding them gently.

- Tug of war self-compassion exercise: In observing himself in the tug of war, the service member said "my heart is breaking...my body wants to shut down...you have to accept who you are which includes who you have been."

- Emphasized his role of an observer of his mind. That he is the container for his experiences...they are happening inside of him, so they can’t also be all of him.

- Practice accepting the emotional pain connected to these stories, noticing where that pain is located in his body, gently making room for it. Noticing any thoughts arising in the presence of this practice (I should punish myself, I can’t take this anymore) and acknowledging them while bringing attention back to his emotion.

Borges, 2019
Telehealth ACT-MI Session Content: De-identified Case Study

- Weekly experiential exercises in-session mapping onto the skill practiced that week and ACT processes in general.

- Weekly bold moves to practice engaging flexibly with values in the presence of pain.
  - Engaged in values related to family relationships, physical self-care, and learning early in treatment. Began engaging in values of spirituality (e.g., learning that contributing to others connects him to a larger purpose) and emotional self-care (e.g., creating a work space for himself, purchasing luthier equipment, and registering a small guitar business) during the last half of treatment.

- Additional weekly skills practice related to content practiced in session that week (e.g., observing facets of moral pain).

- Reviewed safety plan together in session and updated with ACT-MI consistent skills (in particular identifying more specific warning signs, coping skills, and ways to make his environment safe that were consistent with treatment goals).

- Service Member’s wife participated in post-treatment feedback session.

- Service Member’s Vet Center provider followed-up our course of care by encouraging him to continue engaging in bold moves practice to facilitate generalization of skills.

Borges, 2019
I want to be able to thrive both for myself and for the sake of those around me...I want to be able to feel. To identify what I feel and interact with it. Moving forward I want my life to have purpose and meaning. I want to connect to my values of family and spirituality...To be there for my wife, my children, and for me... to recognize that regardless of what’s happened I still have value.”

“I think the biggest thing I did during the intervention that helped was trying to accept the fact that I can value something without living up to that value...that it’s more about moving in the right direction than it is about being or not being any particular thing.”

**Values Related Results: Valued Living Questionnaire (VLQ) and Narrative Evaluation of Intervention Interview (NEII)**

**VLQ SCORES ACROSS TREATMENT**
Experiential Willingness Related Results: Acceptance and Action Questionnaire-II (AAQ-II), Cognitive Fusion Questionnaire for Moral Injury (CFQ-MI), and NEII

“With the focus of this intervention being acceptance of moral pain, it helped me to make peace with the fact that I will feel moral pain based on my moral injuries and that is ok. It’s a good thing to feel pain and mourn loss of life...that does not make me weak or less human or anything else. It means that I am human...that I am able to feel.”

“The intervention did not lessen the amount of pain that I feel. It did not make it so that I no longer feel pain for my morally injurious events...What it did...it made it so that I could connect better with that pain...so I could interact with that pain with more responsibility...and it helped me to identify with areas that I connect to and be able to accept that in my life I will always feel a lot of moral pain and I am still able to feel happiness and feel connected to other people.”

[Graphs showing AAQ-II and CFQ-MI scores across treatment stages: Pre-Treatment, Mid-Treatment, Post-Treatment, One-Month Follow-Up.]
Discussion and Implications for Case Study

• Results of the case study suggest that ACT-MI is acceptable (NEII and Client Satisfaction Questionnaire-8 = 31/32 points) in a telehealth format for a Service Member struggling with difficulties in functioning related to moral injury (Borges, 2019).

• The service member was able to engage in the valued behavior that was critical for his recovery only when he was willing to approach his moral pain (approaching shame in the presence of self-care and spirituality)

• Throughout treatment, the Service Member became less stuck inside of the content of his suicidal thoughts and plans.

• Suicide risk assessment required the therapist’s willingness to accept greater discomfort as the client was not physically in her presence.

• Future studies are needed to understand the efficacy of using ACT-MI to target co-occurring moral injury and suicidal behavior.
After completing ACT-MI, the Service Member compared ACT-MI to previous treatment targeting his morally injurious events on the NEII. He said:

“The biggest difference between ACT-MI and CPT is that ACT is focused specifically on the idea that I need to accept what has happened and not so much try to reassign blame for it. With many other treatment modalities it has focused on aiding victims and survivors to reassign blame and guilt for what they had been through—in my situation I had been unable to do so because the facts of the matter are that I bear full responsibility for the deaths of many people. This treatment was very effective in helping me to develop my values so that I can feel pain without being consumed by it and also focus on striving towards living up to my values and accepting where I am now instead of comparing myself to where I was or where I want to be.”
References

Thank you!

Please contact Lauren.Borges2@va.gov for additional questions

Because we are still developing ACT-MI through our acceptability and feasibility study, a copy of the manual is not yet available for dissemination.