Background

- Since September 11, 2001, over 2.77 million U.S. service members have deployed to Iraq, Afghanistan, and surrounding areas.[1]

- These wars have results in war veterans with physical and mental health problems, such as posttraumatic stress disorder (PTSD).

- Posttraumatic stress disorder (PTSD) results from being exposed to trauma that causes fear.

- Recently there has been growing attention to a new type of trauma called **moral injury**.

[1]Rand Corporation. (2019). *Examination of recent deployment experiences across the services and components*. Retrieved from: https://www.rand.org/pubs/research_reports/RR1928.html

What is Moral Injury?

- Moral Injury may occur when you commit an act OR witness an event that *violates* your moral code.[2] So, it is trauma and it can be upsetting but it doesn't always cause fear.

- Examples include:
  - Injuring or killing a child during combat; treating civilians harshly; making a mistake that harms someone else; failing to save someone else from injury or death; killing a combatant; following an order that doesn't make sense
  - Witnessing mistakes that injure or kill another; seeing others violate rules of combat engagement, treating the helpless with disrespect

- Recent era combat veterans often reported encountering ethical dilemmas (e.g., Should I fire at a child soldier?)[3]
- Among U.S. Marines and Army soldiers deployed to Iraq, 87% and 77%, respectively, reported shooting or directing fire at a combatant, and 65% and 48%, respectively, reported being responsible for the death of a combatant.[4]

[2]Litz, B. T., Stein, N., Delaney, E., Lebowitz, L., Nash, W. P., Silva, C., & Maguen, S. (2009). Moral injury and moral repair in war veterans: A preliminary model and intervention strategy. *Clinical Psychology Review, 29*, 695-706.
[3]Mental Health Advisory Team (MHAT-IV). (2006). Operation Iraqi Freedom, 05-07, Final Report Retrieved from https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/PB2010103335.xhtml;
[4]Hoge, C. W., Castro, C. A., Messer, S. C., McGurk, D., Cotting, D. I., & Koffman, R. L. (2004). Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *New England Journal of Medicine, 351*, 13-22.

What Happens When you Violate your Moral Code?

- When the service member violates their moral code AND they *cannot* make meaning of the event or resolve the conflict between what they did/witnessed and their moral code, moral injury symptoms may develop.[2,5]

- Moral injury symptoms include guilt and shame, difficulty forgiving self/others, anger, distrust, disgust, isolating yourself from other people, feel flawed, spiritual crises, etc.[2,5]

- Moral injury symptoms (e.g., anger, blaming, disgust) can be directed toward *yourself* or *others*[6]

[5]Drescher, K. D., Foy, D. W., Kelly, C., Leshner, A., Schutz, K., & Litz, B. (2011). An exploration of the viability and usefulness of the construct of moral injury in war veterans. *Traumatology, 17*, 8-13.
[6]Currier, J. M., Foster, J. D., & Isaak, S. L. (2019). Moral injury and spiritual struggles in military veterans: A latent profile analysis. *Journal of Traumatic Stress, 32*, 393-404.

What Happens When you Violate your Moral Code?

- Moral injury symptoms are associated with suicidal thoughts and behaviors[7] and suicidal ideation and attempts[8]

- Suicide is the second leading cause of death for military personnel[9]

- About 20 veterans commit suicide per day[10]

[7] Battles, A.R., Bravo, A. J., Kelley, M. L., White, T. D., Braitman, A. L., & Hamrick, H. C. (2018). Moral injury and PTSD as mediators of the associations between morally injurious experiences and mental health and substance use. *Traumatology, 24, 246-254.*
[8] Bryan, A. O., Bryan, C. J., Morrow, C. E., Etienne, N., & Ray-Sannerud, B. (2014). Moral injury, suicidal ideation, and suicide attempts in a military sample. *Traumatology, 20,* 154-160.
[9] Smolensky, D. J., Reger, M. A., Bush, N. E., Skopp, N. A., Zhang, Y., & Campise, R. L. (2014). *Department of Defense suicide event report calendar year 2013 annual report.* National Center for Telehealth and Technology: Joint Base Lewis-McChord, WA.
[10] U.S. Department of Veterans Affairs (2018a). *Veteran Suicide Data Report, 2005–2015.* Prepared by the Office of Mental Health and Suicide Prevention. Retrieved from: https://www.mentalhealth.va.gov/docs/data-sheets/2015/OMHSP_National_Suicide_Data_Report_2005-2015_06-14-18_508.pdf

What was the Purpose of our Study?

- Examine possible moderators, that is, variables that may _reduce_ the association self- and other-directed moral injury and suicidality in a sample of combat-wounded veterans.
- We predicted that three forms of self-compassion,[11] higher levels of _self-kindness, mindfulness, and common humanity_, would _buffer_ or _reduce_ the effects of moral injury on suicidality, such that higher scores of these forms of self-compassion would be associated with a _reduction_ in the strength of the associations between self-directed moral injury and suicidality and other-directed moral injury and suicidality.
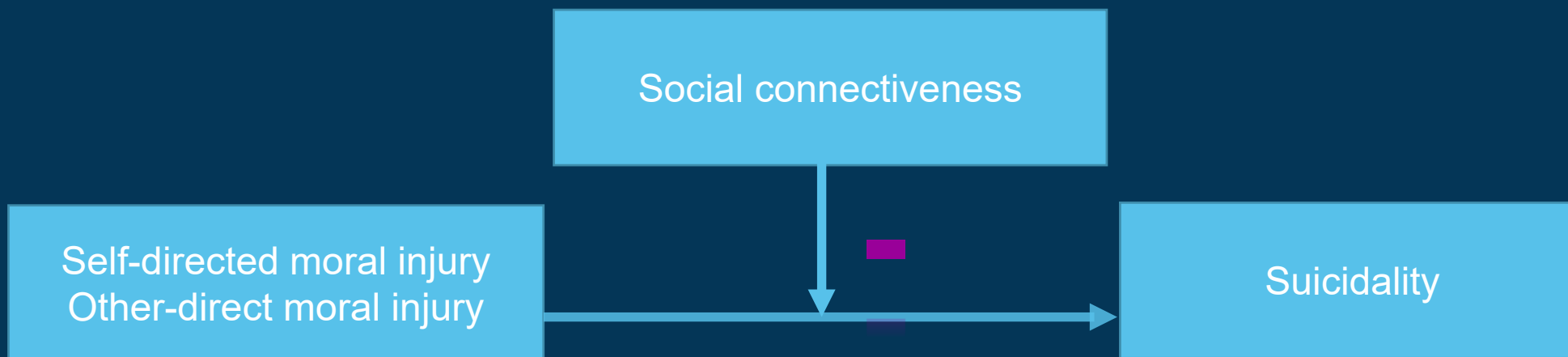

[11]Raes, F., Pommier, E., Neff, K. D., & Van Gucht, D. (2011). Construction and factorial validation of a short form of the Self-Compassion Scale. _Clinical Psychology & Psychotherapy_, _18_, 250–255
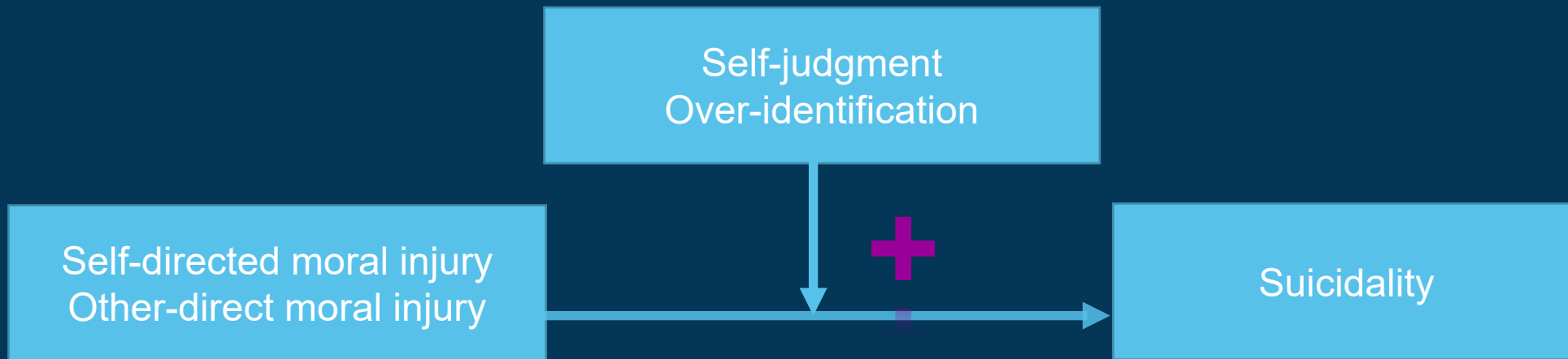
What was the Purpose of our Study?

- In addition, we hypothesized that social connectedness would *buffer* or *reduce* the association of self-directed moral injury and suicidality and other-directed moral injury and suicidality, with higher social connectedness lessening or reducing the strength of this relationship.

What was the Purpose of our Study?

- In addition, we hypothesized that higher scores for self-judgment and over-identification would *increase* the strength of the association between self-directed moral injury and suicidality and other-directed moral injury and suicidality.

Method: Participants, Procedure & Measures

Participants

- 189 combat veterans who were members of the Combat Wounded Coalition
- All had deployed at least once (n = 162 [85.7%] had deployed to recent wars in Iraq and/or Afghanistan
- 96.2% (n = 180) were male
- Participants lived in one of 36 states in the United States
- Mean age = 43.14 (*Median* = 40.00, *SD* = 12.23)
- Most had been in the Army (n = 86, 45.7%) or Marine Corps (n = 46, 24.5%)

Measures

- **Moral Injury**: 17-item Expression of Moral Injury Scale-Military Version (EMIS-M; Currier et al., 2018)[12]

  - **Self-directed Moral Injury** (9 items, e.g., "I am ashamed of myself because of things that I did/saw during my military service")

  - **Other-directed Moral Injury** (8 items, e.g., "When I look back on my military service, I feel disgusted by things that other people did")

[12]Currier, J. M., Farnsworth, J. K., Drescher, K. D., McDermott, R. C., Sims, B. M., & Albright, D. L. (2018). Development and evaluation of the Expressions of Moral Injury Scale—Military Version

Measures

- Self-compassion: 12-item Self-Compassion Short Scale (SCSS; Raes et al., 2001)[11]
  - **Self-kindness** (e.g., "When I'm going through a very hard time, I give myself the caring and tenderness I need."; 2 items)
  - **Mindfulness** (e.g., "When something upsets me I try to keep my emotions in balance"; 2 items);
  - **Common Humanity** (e.g., "When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people"; 2 items);
  - **Self-judgment** (e.g., "I'm intolerant and impatient towards those aspects of my personality I don't like"; 2 items)
  - **Over-Identification** (e.g., "When I'm feeling down, I tend to feel like most other people are happier than I am"; 2 items)

[11]Raes, F., Pommier, E., Neff, K. D., & Van Gucht, D. (2011). Construction and factorial validation of a short form of the Self-Compassion Scale. *Clinical Psychology & Psychotherapy*, *18*, 250–255.

Measures

- Social connection: 6-item Friendship Scale (FSA; Hawthorne, 2006)[12]
    - **Social Connection**: (e.g., "It has been easy to relate to others"; "I had someone to share my feelings with").

Hawthorne, G. (2006). Measuring social isolation in older adults: Development and initial validation of the Friendship Scale, Social Indicators Research, 77, 521-548.

Measures

- Suicidality: 6-item suicidality subscale of the Inventory of Depression and Anxiety Symptoms (IDAS) Suicide Scale (IDAS; Watson et al., 2007)
  - (e.g., "I had thoughts of suicide"; "I hurt myself purposefully")

[12]Watson, D., O'Hara, M. W., Simms, L. J., Kotov, R., Chmielewski, M., McDade-Montez, E. A., Gamez, W., & Stuart, S. (2007). Development and validation of the Inventory of Depression and Anxiety Symptoms (IDAS). *Psychological Assessment, 19*, 253-268.
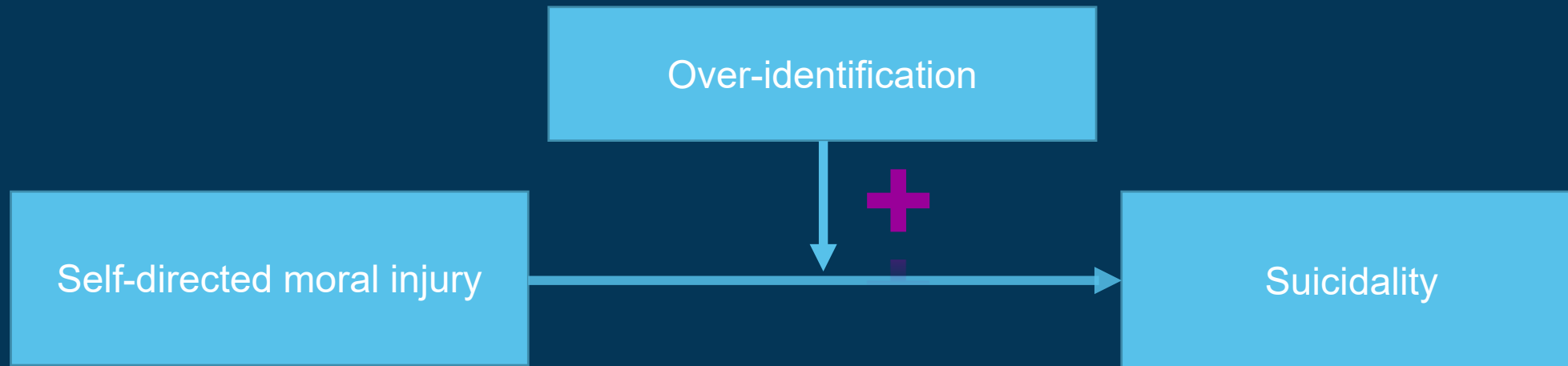
Correlations between Measures and Mean and SD for Study Variables

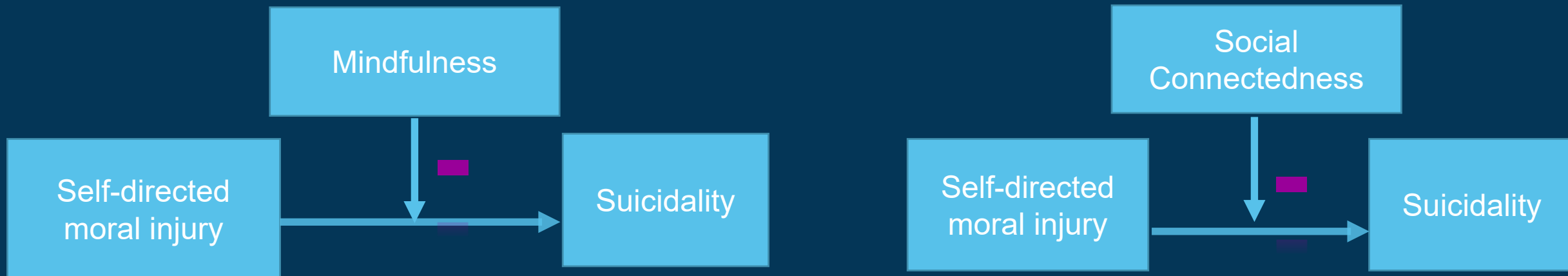|	1	2	3	4	5	6	7	8	9	10	11	M	SD
1. Self-Directed MI	.94											21.30	9.37
2. Other-Directed MI	.80	.92										21.49	8.41
3. Self-Kindness	-.40	-.36	.78									2.67	1.24
4. Self-Judgment	.46	.48	-.22	.77								3.37	1.46
5. Common Humanity	-.33	-.24	.73	-.05	.74							2.87	1.29
6. Mindfulness	-.45	-.34	.65	-.09	.61	.74						3.58	2.39
7. Over-Identification	.45	.48	-.33	.75	-.23	-.24	.87					3.44	1.26
8. Social Connectedness	-.47	-.52	.44	-.44	.38	.38	-.54	.85				12.15	6.06
9. Suicidality	.52	.42	-.22	.49	-.21	-.18	.47	-.44	.85			9.02	4.11
10. Years in Military	-.10	.00	.08	-.09	.05	.02	-.06	.08	-.05	---		12.78	7.81
11. Number of Deployments Months	.05	.08	-.09	.08	-.04	-.03	.12	-.18	.08	.34	---	20.71	16.21

Results & Summary

- Study aims were to understand risk and protective factors that may strengthen or weaken the association between moral injury and suicidality

- Self-directed moral injury and suicidality _strengthened_ at higher levels of over-identification

Results & Summary

- Other-directed moral injury and suicidality *weakened* at higher levels of mindfulness and social connectedness

Why is this Important? Clinical Implications

- When combat veterans report moral injury symptoms, such as over-identifying with their failings, this is something that can be addressed in traditional therapy or perhaps other less-traditional therapies.

- Mindfulness and social connection may benefit combat veterans who report more injury symptoms. Teaching mindfulness and emphasizing supportive connections with others may benefit veterans with moral injury symptoms.

Thank you!

American Psychological Association – Division 19 (Society for Military Psychology)

Members of the Combat Wounded Coalition who took part in the study

My collaborators and lab members:

    Adrian J. Bravo, Rachel Davies, Hannah C. Hamrick, Christine Vinci, Jason Redman, Sarah Ehlke, Lee Grolembiewski, John Schwartz, Sean Cox, John Lokke, Alicia Milam, and John Chae

Please contact:

Michelle L. Kelley, Ph.D.
mkelley@odu.edu