



McLean HOSPITAL
HARVARD MEDICAL SCHOOL AFFILIATE

Moral Injury in First Responders

Beth L Murphy MD PhD



McLean HOSPITAL
HARVARD MEDICAL SCHOOL AFFILIATE

Affiliations

Medical Director:

Law Enforcement, Active Duty, Emergency Responder

Mood, Anxiety, Stress, and Trauma Outpatient Clinic

Designated PHS liaison and physician support team member for physicians being admitted to McLean for Mood and Anxiety disorders.

Principal Investigator

K Ressler: Neurobiology of Fear Research Program

M Kaufman: Dissociative Disorders & Trauma Research program

Disclosures

Within recent years, portions of my research salary have been funded by studies into the treatment of PTSD by the US Department of Defense, Nobilis Therapeutics, and Alto Neuroscience.

None of these studies or the compounds examined are included in today's talk.



outline

1. Understanding Moral Injury
2. Risks for Moral Injury
3. Common Comorbidities
4. Resilience, Compassion, and Spirituality
5. Treatment of Moral Injury

Moral Injury: a new concept?

Euripides wrote in 416 BCE about 'miasma' as a cloud-like moral contamination created by unjust killings- a taint that contaminated the killer, victim, and observers.



Moral Injury: a new concept?

What can I do? Where can I hide from all this and not be found? What wings would take me high enough? How deep a hole would I have to dig? My shame for the evil I have done consumes me... I am soaked in blood-guilt, polluted, contagious... I am a pollutant, an offense to the gods above.

(Euripedes, 416 BCE quoted in Koenig and Al Zaben, 2021)



Masaccio, *Expulsion from the Garden of Eden*, ca. 1427.

Evolution of Moral Injury as a Concept

- More recently, developed in conceptualizing the aftermath of activities conducted by soldiers during conditions of combat.
- In 1994 Jonathan Shay used the Greek concept in writing about moral injury in Vietnam War Veterans. (*Achilles in Vietnam: Combat and the undoing of character. Scribner Publications*)

Evolution of Moral Injury as a Concept

- The term came into more widespread use in 2009 with an article on moral injury by Brett Litz et al in describing their experience of working with veterans. (*Litz et al, 2009. Moral Injury and Moral Repair in War Veteran: A preliminary model and intervention strategy*)



Guernica (Pablo Picasso 1937)

Moral Injury: definition(s)

- Moral Injury vs Moral Distress
 - Some use interchangeably
 - Others use *moral injury* as the disease caused by episodes of *moral distress*
 - Others use *moral distress* to denote the state when institutions/circumstances prevent a person from pursuing the ethical choice and *moral injury* as the sequelae of an error or poor judgment.
 - And yet others use *moral injury* when it is caused by violence/death and *moral distress* when it is caused by an ethical dilemma.
- Exact definitions and common understanding of many terms are still a 'work in progress'.

Moral Injury

Perpetration focused:

Perpetrating, failing to prevent, bearing witness to, or learning about acts that transgress deeply held moral beliefs and expectations. (Litz et al, 2009)

Betrayal based: A character wound that stems from a betrayal of justice by a person of authority in a high-stakes situation (Shay, 2014)



The Kiss of Judas by Giotto

Common Types

- Moral injury related to external obstacles
 - Policies
 - Available resources
 - Ex- Medical triage at mass disasters when there is not enough transport for the wounded, such as Boston Marathon bombing.
 - Role of anger
- Moral injury related to failure to live up to your own ideals.
 - Ex- failure to identify creator of internet child pornography, to de-escalate a suicidal person or to prevent a colleague from being injured.
 - Role of guilt/shame
- Moral injury related to failure to do what is 'right'
 - Ex- not speaking up when seeing a colleague behaving unethically/unsafely, such as death of George Floyd.
 - Role of guilt/shame

Moral injury- a syndrome

- Moral injury is defined as a syndrome, not a disorder.
- Normal vs abnormal/pathological reaction to a moral violation or conflict between competing values
 - Ex- military service may lead to conflict between loyalty to country, duty to oaths, and prohibition about killing others.
 - Ex- health care workers in Ebola-stricken areas found that there were inadequate resources to isolate the ill, putting others at risk (Gustavsson 2019)
 - Affected by cultural norms and by community response.

Moral Injury

Current understanding of this syndrome includes emotions resulting from the dissonance from conflicting or violated moral principles (Jinkerson, 2016)

Shame/disgust

Isolation/impaired interpersonal functioning

Grief/loss

Guilt/Remorse

Anger

Existential or spiritual crisis

- loss of meaning/purpose

- loss of trust in self, others, deity

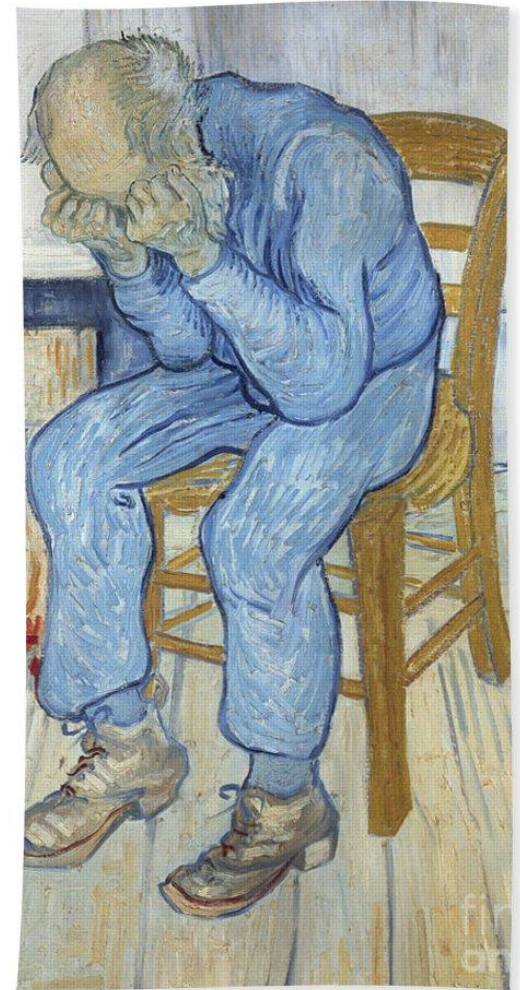
- Re-orienting of value systems

- not deserving to succeed/self-sabotage

- crisis of religion

Depression

Anxiety



Old Man in Sorrow, Van Gogh (1890)

Measuring Moral Injury

- Early versions of structured assessments were felt to be helpful in identifying Moral Injury, but less helpful in assessing severity or change over time.
 - Moral Injury Events Scale (William Nash, 2013)
 - Moral Injury Questionnaire (Joseph Currier, 2015)
 - Both developed with current military or veterans
- Moral Injury Symptom Scale- military (45 items long version and 10 item short version; Koenig et al 2018)
- Expressions of Moral Injury- military (17 item and 4 item versions; Currier et al, 2018 and 2020)
- These are used in research, but clinicians often feel that they can identify and name moral injury without the need for a scale.

Measuring Moral Injury

- Self-directed symptoms
 - Guilt
 - Self-condemnation
 - Shame
- Other-directed symptoms
 - Anger
 - Betrayal
- The scales developed by Koenig also include spiritual symptoms, such as loss of faith

Populations at elevated risk for moral injury

- Healthcare providers
- Humanitarian aid workers
- Military
- Law enforcement
- Emergency Medical responders
- Child protection workers



The Good Samaritan by Van Gogh

Types of First Responders



The Doctor by Fildes

The occupation-at-risk affects the types of incidents they are likely to encounter and how they view the problem.

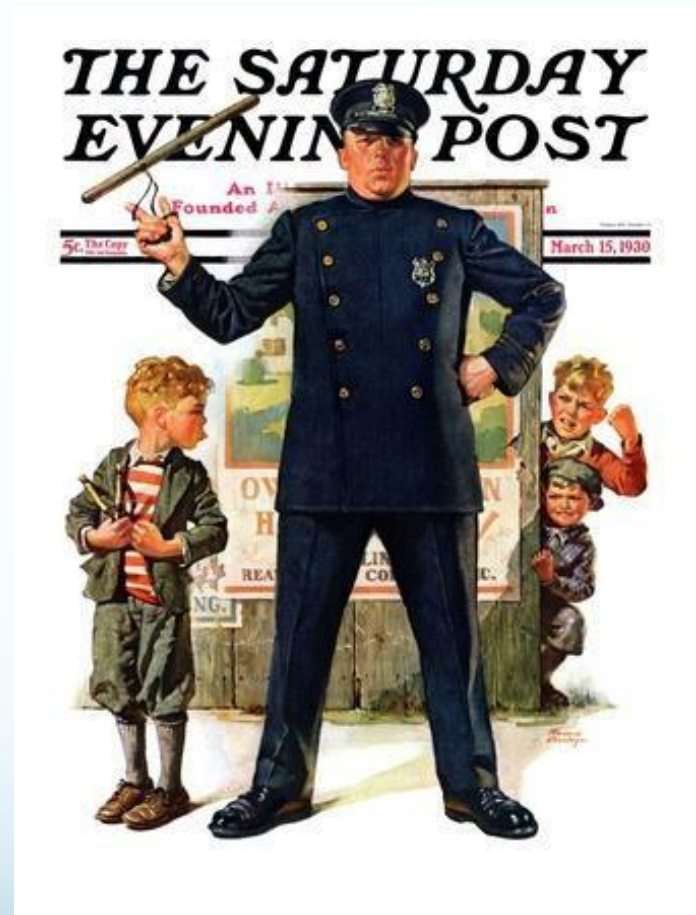
- Physicians during the covid pandemic may be asked to choose who will/won't get a ventilator. This can violate the principle that every life is valuable.
- Soldiers may decide to shoot children approaching in areas where they have been used to bring explosives to troops. This violates the prohibition against killing vulnerable citizens, especially children.

Types of First Responders

- Although there are commonalities, the culture of the different types of first responders can be very different.
- The culture and sub-culture can affect how the moral injury is processed and understood.
 - Most police officers are patrolling solo. They are expected to call for backup, but to be able to manage the situation until it arrives.
 - Firefighters typically work in groups. They are supervised by a fire/safety captain at housefires, who tracks their movements. When entering a burning building, they go in pairs- 'two in, two out'.

Common Values in First Responders

- Ranking values may impact how someone acts when values are in conflict.
- Many first responder cultures value being self-reliant and being 'the helper'.
- Stigma associated with being helped
seeming weak
grieving.
not knowing 'what to do'



Police officer by Norman Rockwell

Moral Injury in First Responders

- At increased risk based on repeated exposure to violence and trauma.
- Making life and death decisions
- Errors can have life-threatening consequences
- For some, a sense that they are dealing with ‘evil’
 - 58% of police officers in a sample reported that they had encountered evil and the majority felt ill-equipped to manage this encounter (Feemster 2007)

High Profile Events



Newsboy by Mulready

- High profile killings of black individuals
- Publicized shootings of people with mental illness
- US Capitol Riots
- 9/11 terrorist attacks
- Boston Marathon bombing
- Mass disasters
- Treatment of families and children at country borders

More common experiences

- Responding to sexual assault or murder of children by family members
- Decision to send or deploy colleagues at an incident in which they died or were injured
- Gruesome dismemberment of bodies in accidents, handling human remains
- Unattended and un-noticed deaths
- Suicides
- Observing severe injuries and suffering
- Witnessing people trapped in vehicles or fires

Aftermath of experiences

- Estimates are that average law enforcement officer experiences 6 potentially traumatic events in an average year.
- Response and attitudes of family and the community (both occupational) and broader may affect the risk for moral injury

Risk Factors for Moral Injury

- In military and health care providers, risk factors include
 - Younger age
 - Single/divorced status (HC)
 - Involvement with CV19 patients or workplace violence (HC) or more combat exposure (M)
 - White race (M)
 - Less education (M)
 - **Lower levels of social support (M)**
 - Female (HC)
 - **Low levels of religious affiliation/spiritual beliefs**
 - Pain (M)
 - **Substance use (M)**
 - **Depression or anxiety**
 - **Prior trauma**

Risk Factors

- Relatively few studies of moral injury in first responders.
- Based on other studies, there are a number of hypothesized risks.
 - Repeated exposure to traumatic events or ethical dilemmas
 - Often with variable schedules, disrupting sleep hygiene
 - Need to make rapid, but critical decisions
 - Emphasis on ‘owning decisions’ but often working in settings where there may be external controls (policies, expectations, limited equipment).



Sleeping Gypsy by Henri Rousseau

Adverse Childhood Events in Police Officers

- Childhood physical or sexual abuse (Follette et al 1994)
 - Almost 1 in 5 male police officers (17%)
 - Over 1 in 3 female police officers (40%)
- Childhood maltreatment or family violence (Kurtz et al, 2015; Zavala 2013; prost et al, 2020)
 - 32-35% reported maltreatment
 - 20-35% reported family violence

Adverse Childhood Events

- Individuals with adverse childhood events may be at increased risk for the development of moral injury (Battaglia 2019)
- The thought is that these events affect the development of emotion regulation (Roth 2022)



Mother About to Wash Her Sleepy Child by Mary Cassatt

Risk Factors



Buddhist Wheel of Life

Few studies on cultural factors, minority groups, or specific religious beliefs.



Kerry James Marshall, Untitled

Rates of Moral Injury

- Military and/or veterans= 80-90% with one or more symptom on the MISS-LF scored as 'high' (Koenig and Al Zaben, 2021)
- Seven common themes in moral injury (Hodgson et al, 2021)
 - Witness or perpetrator of immoral acts
 - Witness or perpetrator of death or injury
 - Betrayal by self or others
 - Ethical dilemmas/decision-making
 - Disproportionate violence
 - Retaliation
 - Religious/spiritual issues

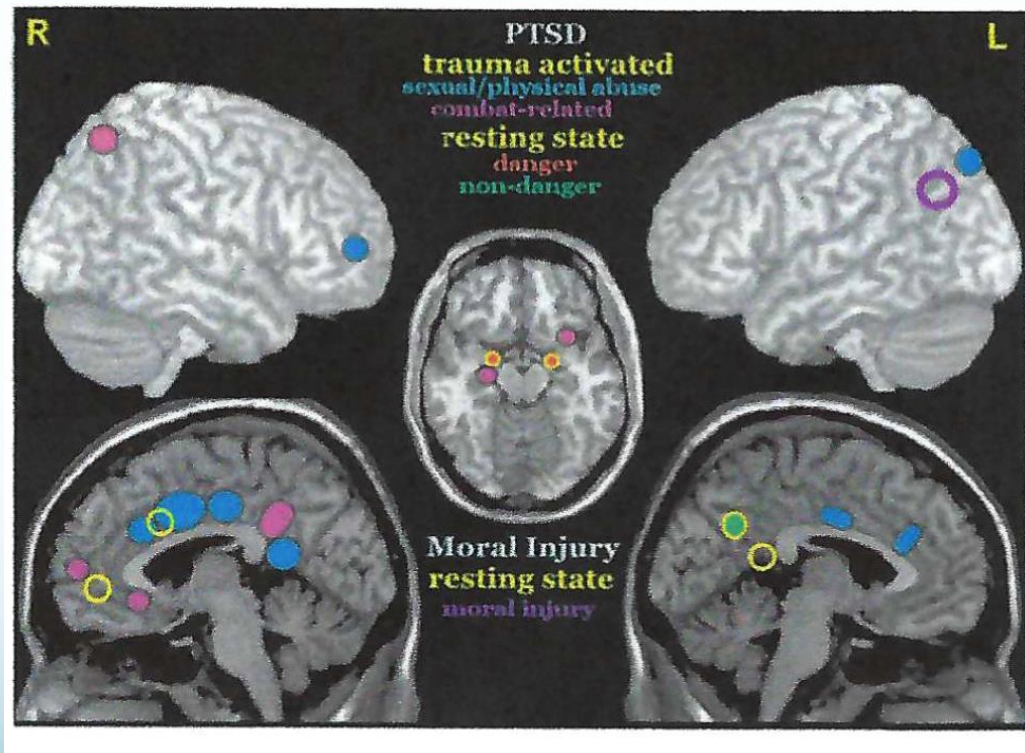
Relationship to PTSD

- Some argue that moral injury is a precursor to PTSD and is 'folded in' among the symptoms of PTSD such as avoidance and numbing (Papazoglou 2017)
- Certainly, moral injury seems to increase risk for PTSD, MDD, and SUD.

Relationship to PTSD

However, PTSD and moral injury seem to have separate areas of processing in the brain.

Fear based processing areas vs moral processing areas appear distinct on fMRI



Barnes, Hurley, and Taber (2019)

PTSD and Trauma

- Clinically important illness, affecting
 - 5% to 10% population
 - 15% to 25% veterans
- Lifetime trauma exposure risk = 40-75%,
 - Lifetime prevalence among those exposed to sign trauma up to 25%
 - studies: 15% Vietnam veterans, 24% young urban adults, 39% traffic accident victims

Posttraumatic Stress Disorder and Other Trauma-Related Disorders



9/11 by Alessandro Cedroni

- Police officers ~7-19%
- Firefighters ~11-32%
- Paramedics ~15-37%

Depression

- Police officers ~ 24%
- Firefighters ~3.5-19.5%
- Paramedics ~6.8-10%
- Corrections officers ~31%



Starry Night by Van Gogh

Studies in First Responders

- British study of officers working in internet child abuse identified viewing of repeated images with limited decompression time as risk factors for the development of pathology.
- 45 % of public safety officers in Canada screened positive for either PTSD or MDD, against a general civilian rate of 10% (Statistics Canada 2018)
- Canadian firefighters are twice as likely to consider suicide than the average citizen (Carlton 2018)

PTSD and Moral Injury in First Responders

- A Finnish study identified the presence of moral injury as a significant predictor of PTSD (Papazoglou, 2020)
- Moral injury can be found in about 1/3rd of combat-related PTSD (Bryan 2018)
- In our clinic, often thought of as PTSD+, as we rarely see MI without comorbid trauma or depression disorders.

PTSD and Moral Injury

- PTSD with Moral Injury is associated with greater severity of PTSD, depression, and risk of suicide.



Hell by Hieronymus Bosch

PTSD and Moral Injury

- Moral injury may be a risk factor for the development of PTSD (Papazoglou 2020, Nazarov, 2018)
- Moral injury can be a predictor of suicide in military personnel and veterans (Bryan, 2014; Ames, 2019)
- Some researchers have suggested that those who have high levels of spiritual struggles may be at particular risk for suicide (Currier et al, 2017)
- Increased risk of suicidal ideation/attempts in members of the National Guard when moral injury was diagnosed along with PTSD (Bryan, 2018)

Common Thoughts

- I made a mistake and there is no way to make amends or to move past this.
- I'm ashamed. How could this have happened if I am not a horrible person?
- Other people will betray me if they can. No one can be trusted.
- Once I became 'damaged' the department 'kicked me to the curb'.
- When people judge me, it makes me so upset. I avoid people because it hurts, and I don't know how to explain.
- If people knew what I did, they would surely be disgusted by me.
- There is something wrong with me that I no longer feel upset by these events. I'm just numb and exhausted.

Common Distortions

- Overestimation of personal responsibility
- Under-appreciation of context

Prevention of Chronic Moral Injury Syndromes

- In healthcare workers, exposure to secondary trauma were associated with burnout and compassion fatigue.
- This is likely true for first responders as well.

Prevention of Chronic Moral Injury Syndromes

- Most prevention studies in healthcare workers
 - Interventions for compassion fatigue can be effective
(Cocker and Joss, 2016)
 - Emphasis on maintaining sleep hygiene
 - No studies in first responders
- US military in Iraq were given ethics training, but studies suggested that unethical behaviors were frequent and over a quarter of those surveyed reported that there were situations where they were uncertain about how to act ethically (Castro 2007).

Prevention of Chronic Moral Injury Syndromes



Luncheon of the boating party by Renoir

- Several studies have highlighted the role of social support in the development of PTSD, depression, and anxiety in first responders and emergency medical service workers (Marmar, 2006; Feldman, 2021)
- Community censure and extrusion may place individuals at higher risk.

Prevention of Chronic Moral Injury Syndromes

- Development and support of resiliency may be an important way to intervene
- In first responders who were rated as having low resiliency, 80% developed worsening trauma symptoms (Joyce, 2019)



Farnese Atlas

Prevention of Chronic Moral Injury Syndromes

Increasing resiliency before moral injury is important

But, it does not replace attention to systems that increase the risk of moral injury.

Mindful Ethical Practice for Nurses has been shown to improve resilience. This does not mean that a future shortage of PPE or ventilators during pandemics becomes okay.

Resiliency

- Moral resiliency often improves with experience/age.
- Elements include
 - Personal integrity
 - Optimism
 - Effective self-regulation
 - Self-awareness
 - Purpose and meaning

Spirituality



Forest by Cezanne

- Spirituality does not need to be defined as a traditional religious perspective.
- Studies on the role of spirituality in moral injury suggest that non-conventional spiritual practices, such as humanism or agnosticism, are also important.

Spirituality

- higher levels of spiritual distress are associated with
 - More severe PTSD
 - Longer course of PTSD symptoms
 - Less robust response to treatments for PTSD
 - Worse mental health outcomes

(Usset 2020)
- Military veterans with ‘conventional’ spirituality (literal and concrete interpretations) who dis-affiliated reported greater levels of suffering (Usset 2020)
- Post-conventional spirituality allows greater resilience in the face of moral injury.

Spirituality



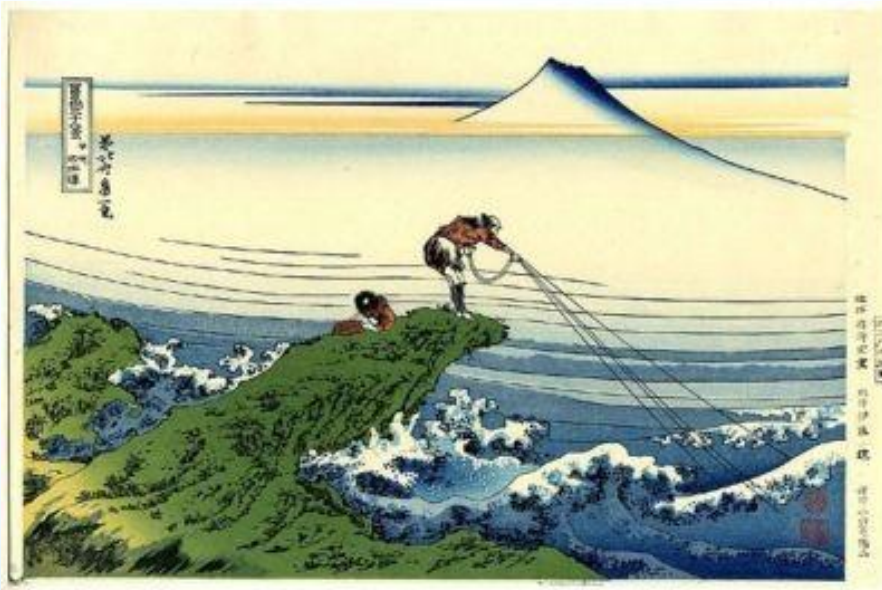
*The Last General Absolution of the Munsters
at Rue du Bois by F Mantania*

- Mediator may be forgiveness and compassion, including self-forgiveness (Bryan 2015)
 - Greater self-forgiveness is associated with less severe PTSD
 - Lower self-forgiveness is associated with increased suicide attempts
- Role of therapy in moral repair
 - Self-forgiveness
 - Making amends
 - Recognizing 'goodness' in world

Spirituality

- Many modalities incorporate elements of spirituality or use pastoral care as an ‘add on’.
- Spirituality can be protective, depending on the individual orientation.
 - Spirituality is inversely related to alcohol use in police officers (Chopko 2012)
 - Pastoral counseling may help individuals move from conventional to post-conventional spirituality or to process a disruption in their world view.

Spirituality



The lone fisherman at Kajikazawa by Hokusai

- Spirituality may give a lens to make meaning of events
- May also be important in providing a mechanism for forgiveness and self-compassion

Compassion

- Self-compassion is associated with
 - Less depression
 - Lower anxiety(McDonald 2021)



Self portrait by Rembrandt

Compassion

- Emphasizing the role of forgiveness in moral repair, studies (McDonald 2021) have shown that self-compassion in health care workers is associated with a lower risk for
 - Depression
 - Anxiety
 - Stress
- Self-compassion
 - firefighters lowered self-criticism and depression in firefighters (Kaurin 2018)
 - Predicts resilience in dispatchers and paramedics (Bilsker 2019)

Compassion

- Fewer studies on compassion for others.
- This would be important to understand for first responders, as satisfaction from helping others is often cited as a motivation for the occupation.
- It could be that it is protective, increasing sense of meaning and purpose.
- It could be a risk, by increasing the emotional pain when seeing the suffering of others.



Alms by le Camus

Compassion

- Some studies indicate that compassion for others is associated with less secondary trauma and burnout.
- Other studies suggest that high levels of compassion is associated with higher stress levels and secondary trauma in health care workers.
- Studies in police indicated that high levels of compassion for others was predicted burnout but not secondary trauma (Turgoos 2017)

Challenges in the Treatment of Moral Injury

- Patients may feel that they do not deserve to feel better. This can show up with
 - Limited engagement in treatment
 - Self-sabotage behaviors
- Therapists may have strong feelings about the actions and events disclosed by patients.



Weighing of the Heart, Ancient Egypt

Stages of Treatment

1. Stabilization and safety
 - Psychoeducation
 - tolerating difficult emotions
2. Updating memories and processing emotions
 - Realistic assessment of responsibility of self, others, and context
 - Identifying bias and errors in thinking
 - Making meaning of events
3. Reconnection, growth, and reintegration
 - Acceptance and self-compassion
 - Making amends or addressing system failures where appropriate

Types of Treatment for Moral Injury

Secular	Spiritual/religious	Pastoral care
Adaptive disclosure therapy (ADT) (Litz et al., 2017)	Building spiritual strength (BSS) (Harris et al., 2011 , 2018)	Healing through forgiveness (Grimsley & Grimsley, 2017)
Acceptance and commitment therapy (ACT) (e.g., Hayes et al., 2011 ; Kopacz et al., 2016 ; Nieuwsma et al., 2015 ; Evans et al., 2020)	Spiritually integrated cognitive processing therapy (SICPT) (Koenig et al., 2017 ; Pearce et al., 2018)	Structured pastoral care (SPC) (Ames et al., 2018b)
Cognitive behavior therapy (CBT) (e.g., Maguen & Burkman, 2013 ; Maguen et al., 2017 ; Purcell et al., 2018)	Religiously integrated cognitive behavior therapy (RCBT) (Koenig et al., 2015) ^a	Pastoral narrative disclosure (PND) (Carey & Hodgson, 2018)
Cognitive processing therapy (CPT) (Hoge & Chard, 2018)		Moral injury reconciliation therapy (MIR) (Lee, 2018)
Prolonged exposure (PE) (e.g., Held et al., 2018 ; Paul et al., 2014)		Moral injury group (MIG) (Cenkner et al., 2021)
Alternate therapies (e.g., eye movement desensitization and reprocessing (EMDR) Shapiro & Laliotis, 2015 ; Hurley, 2018)		

From: Moral Injury: An Increasingly Recognized and Widespread Syndrome (2021)

Role for Therapists in the Treatment of Moral Injury

Regardless of type of therapy selected, key tasks include:

- Facilitation of emotional processing
- Making meaning of events, supporting exploration of spirituality
- Challenging distortions
- Promoting self-compassion



19 I and the Village (1911)

I and the Village by Chagall

Moral Injury

Questions or Comments?