



The Human Flourishing Program

at Harvard's Institute for Quantitative Social Science

A Theoretical Framework on the
Relationship Between Adverse Childhood
Experiences and Moral Injury.

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Introduction

- Founded in 2016, the Human Flourishing Program at Harvard's Institute for Quantitative Social Science aims to study and promote human flourishing, and to develop systematic approaches to the synthesis of knowledge across disciplines.
- The program's research contributes to the broad question of how knowledge from the quantitative social sciences can be integrated with that of the humanities on questions of human flourishing and how best to carry out this synthesis of knowledge across disciplines.

Human Flourishing Program Core Research Domains

- Religious Communities:
Spirituality and Religion in
Medicine and Public Health,
and Theology of Health
- Meaning and Purpose:
Determinants of purpose
- Character and Formation:
Forgiveness / Philosophy of
Character
- Work and Wellbeing
- Family and Relationship

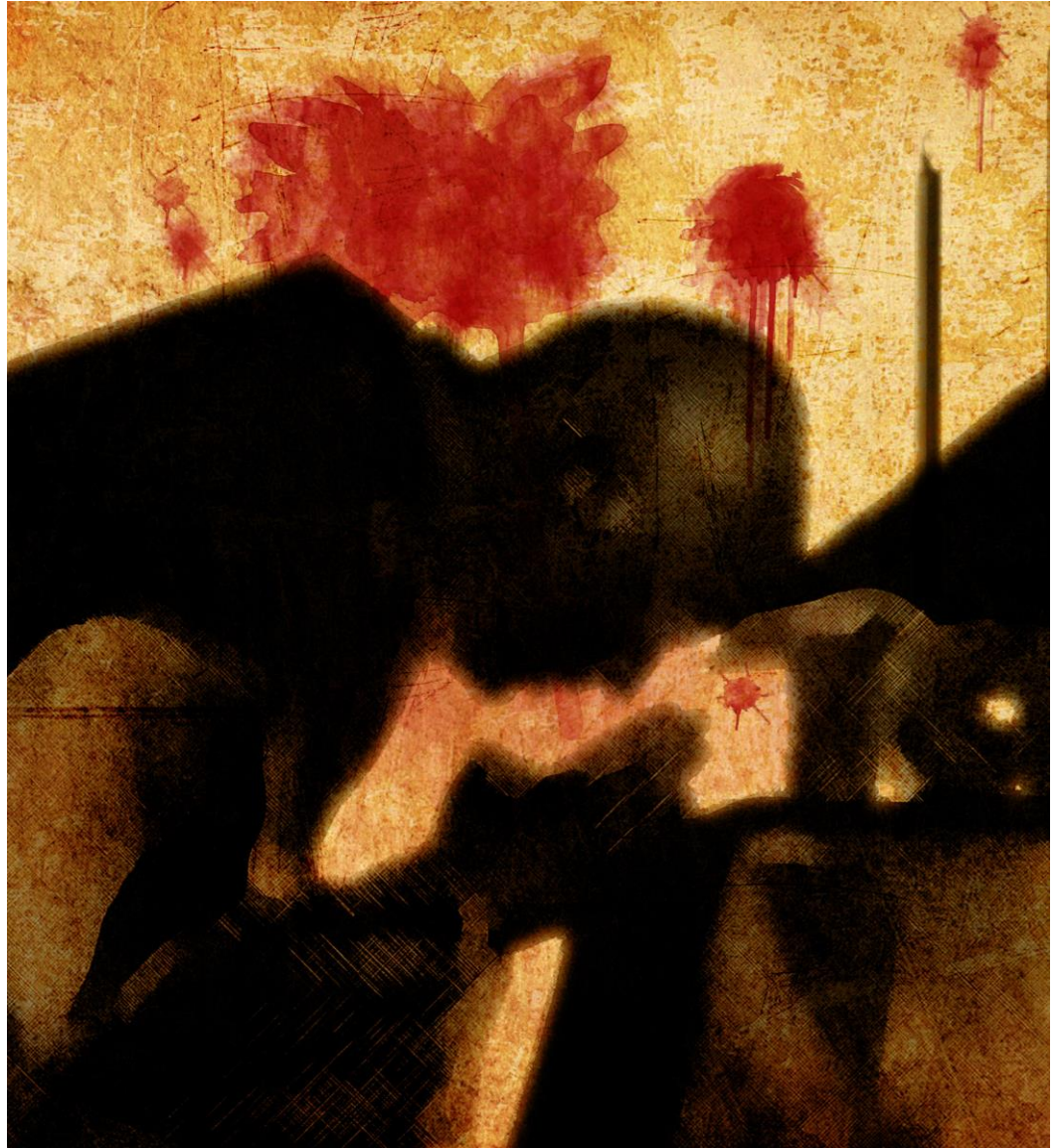


A photograph of three children of different ethnicities (two Black and one Asian) looking intently at a small globe. The globe is held by one of the children, and they are all focused on it. The background is blurred, showing other people in a classroom or community setting.

Personal Research Focus

- High reliability organizational cultures.
- The impact of religion, and spirituality on health outcomes
- Clinical translational research integrating religion and spirituality into public health practice, with a specific focus on:
 - Moral Injury
 - ACEs

What is Moral Injury



Moral Injury

Moral Injury is the presence of persistent distress following a potentially morally injurious event (PMIE), or series of PMIEs.

A Potentially Morally Injurious Event (PMIE): a personal experience that disrupts or threatens one's beliefs or intuitions about right and wrong, good and evil, and/or one's sense of the goodness of self or others.

Examples: Adverse childhood experiences, interpersonal violence (e.g., domestic abuse, rape, bullying), crime (murder, assault), war (senseless killing/torture), discrimination, harassment, betrayal, and wrongful conviction, etc.



Distress and Disorders Associated with Moral Injury

Psychological – Neurological – Physiological

- Psychological Distress: Anger, guilt, shame, sorrow, despair, interpersonal conflict, and sleep disruption, etc.
- Psychological / Neurological Disorders: Dissociative disorders, dysphoric disorders, mal-adaptive coping (e.g., substance-use disorders, affective disorders, and obsessive-compulsive disorders, etc.). PTSD, chronic stress syndrome, hypervigilance, neurocognitive impairments, emotional dysregulation, etc.
- Physiological Disorders: short term - physical trauma, and longer-term - obesity, diabetes, hypertension, stroke, cardiovascular disease, and cancer.

Existential – Spiritual

- Existential Distress: Increased feelings of isolation, pre-occupation with fear of death; loss of meaning, identity, or sense of freedom (agency).
- Spiritual Distress: loss of belief in God, changes in the perception of God as a benevolent being to a God that is malevolent; anger at God, feeling abandoned or punished by God.

Morally Injury

Three distinct types of moral injury:

- **Type I-Perpetrator:** an individual or organization causing the direct infliction a PMIE such as a violent act, omission, or gross negligence that causes significant harm or suffering to others.
 - Intentional
 - Unintentional
- **Type II-Witness/Association:** an individual or organization who bears some responsibility for failing to prevent or stop a PMIE, or who may have failed in their duty to protect someone from a PMIE.
- **Type III-Victim/Vicarious:** a MI resulting in significant harm or suffering caused by the infliction of PMIE, or a series of PMIEs.



Adverse Childhood Experiences & Moral Injury

What are ACEs

Adverse childhood experiences (ACEs), are traumatic, highly stressful events that occur in childhood (0-17 years), such as:

- Experiencing violence, abuse, or neglect
- Witnessing violence in the home or community
- Having a family member attempt or die by suicide
- Parent/caregiver with a substance use or mental health problem
- Instability due to parental separation or loss of a parent/caregiver.
- Household member imprisoned.
- Displacement (homelessness, refugee)
- Food Insecurity



Incidence of ACEs

- Globally, it is estimated that up to 1 billion children aged 2–17 years, have experienced physical, sexual, or emotional violence or neglect in the past year.
- Research sponsored by the U.S. Department of Health and Human Services estimates that on average, one in seven children experience child abuse and/or neglect before their 18th birthday.
- More than 1,000 youth are treated in emergency departments for physical assault-related injuries and six children die from abuse related injuries each day.
- One in five children reported being bullied, and 8% had been in a physical fight on school property one or more times during the 12 months before the survey.

World Health Organization (accessed via WHO.int. 4/15/2022). Child Welfare Information Gateway. (2021). Child abuse and neglect fatalities 2019: Statistics and interventions. U.S. Department of Health and Human Services, Administration for Children and Families, Children's Bureau (2020).



Impact of ACEs

- A landmark study by Kaiser Permanente and the CDC found a significant association between ACEs (childhood stressors) and adverse health outcomes (e.g., diabetes, hypertension, cardiovascular disease, stroke, and cancer, etc.).
- ACEs are associated with increased risk for adverse mental health outcomes. A significant percent (75% to 80%) of adults experiencing PTSD, anxiety, depression, and/or Substance-use Disorder have a history of ACEs.
- People with an ACE score of 6 or higher are at risk of their lifespan being shortened by 20 years, and the risk of attempted suicide is increased by 1200 percent.
- **WHY?**

ACEs Impact on Health Outcomes!

WHY?

- Children growing up in adverse conditions, such as an abusive environment, or long-term food, or shelter insecurity are especially vulnerable to stress.
- Researchers found that being chronically 'stressed' or in a constant state of 'high alert' interferes with a child's ability to explore and learn from their environment or to socialize with others. This results in a chronic, or constant state of stress (i.e., stress that persists for several months, or years), known as toxic stress.
- Toxic stress affects the brain including memory, selective attention, self-control, and the ability to turn off the stress response. These physical and psychological states can become imbedded traits over time as the brain is developing.
- **Many people do not realize that exposure to ACEs is associated with increased risk for health problems across the lifespan.**



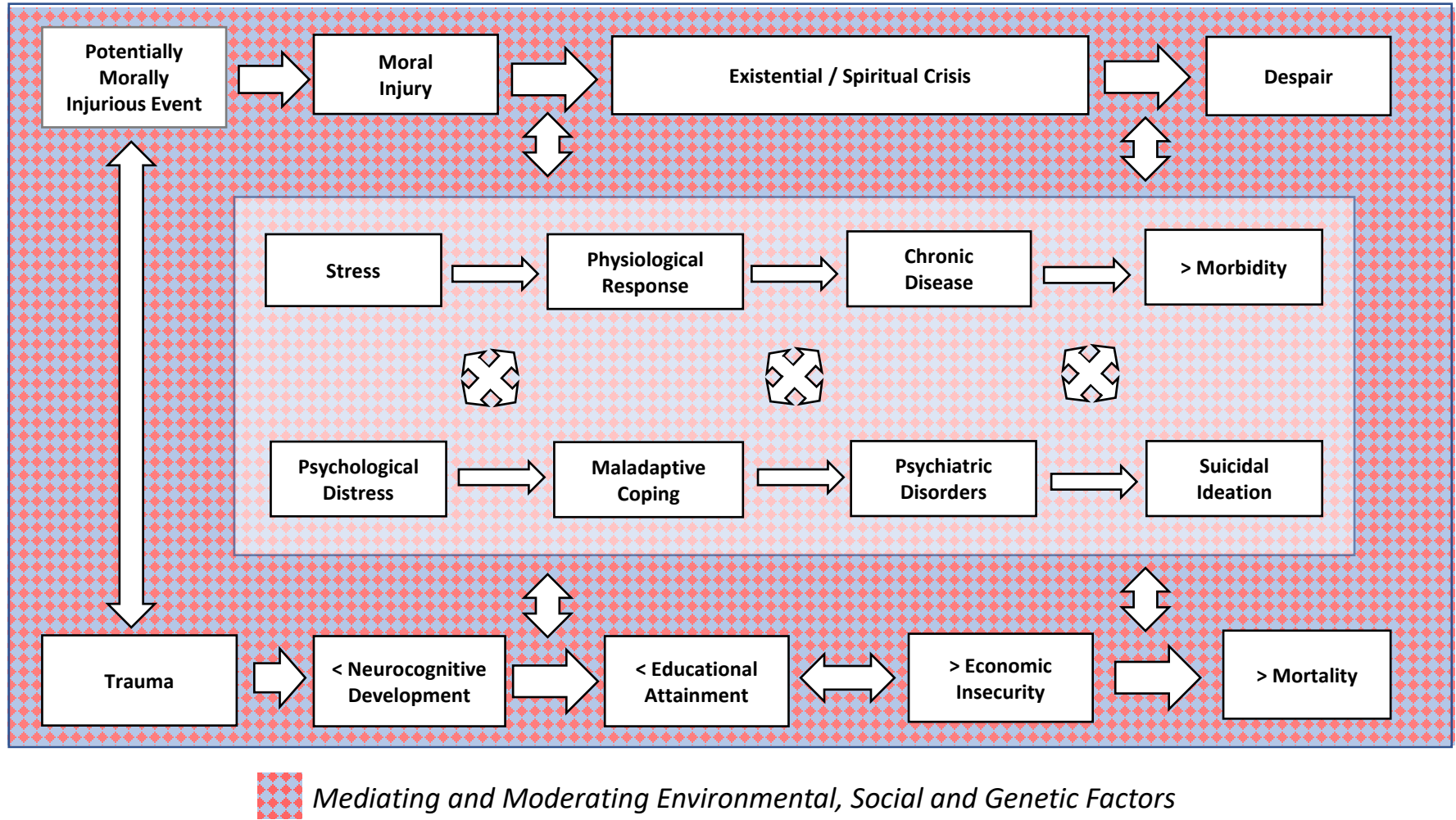
Emerging Research

- Emerging research has found moral injuries are associated with both ACEs and negative mental health outcomes in adulthood, particularly trauma-related pathologies such as PTSD and depression.
 - Pre-disposing factors including exposure to ACEs was suggested as a possible risk factor for moral injury-related distress in military personnel (Williamson et al., 2020). Approximately, 24 % of the UK Armed Forces (AF) report exposure to high levels of childhood adversity (Murphy & Turgoose, 2019)
 - A study examining combat-related trauma exposure in American military members found that troops who reported higher levels of ACEs were significantly more likely to exhibit PTSD and depression symptoms even after controlling for the contribution of the traumatic event itself (Cabrera et al., 2007).
 - Researchers studying mental health symptoms in Public Safety Personnel found an association between adverse childhood experiences and moral injury (Roth, et al 2021).

Trauma Likely to be Associated with ACE and MI

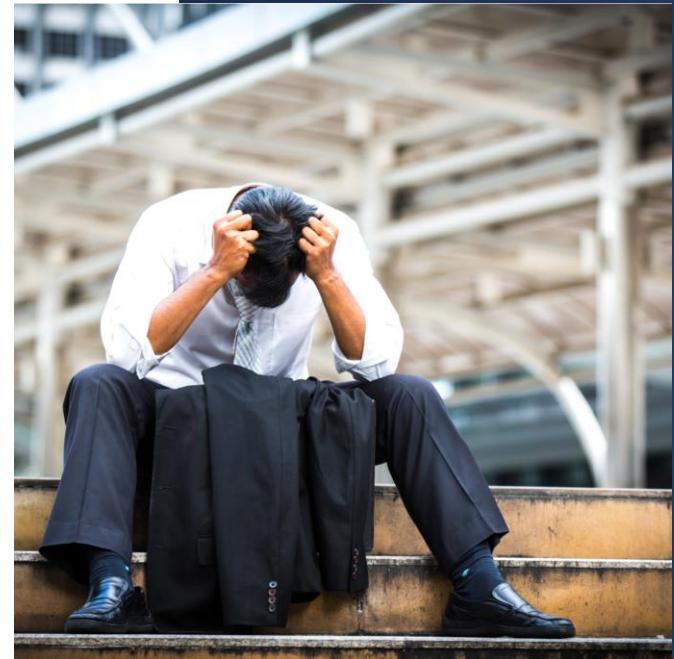
Impact	Description	Who
Neurocognitive Trauma	Trauma can lead to neurological changes to the developing brain that impact the child's attention, coping, mood regulation, emotional response, cognition, and ability to form healthy attachments throughout their lifespan.	Child Perpetrator/Witness, Victim, Victims Children, Siblings
Psychological Trauma	May result in long-term psychological sequelae including PTSD, complex PTSD Substance-use Disorders, Eating Disorders, Generalized Anxiety Disorder, Chronic Depression, etc.	Perpetrator/Witness, Victim, Victims Children, Siblings, Spouse/Significant Other Parents/Caregivers
Complicated Grief	When a loss has been traumatic, an individual may be susceptible to a psychological condition known as complicated grief. Complicated grief occurs when one's feelings of loss are debilitating and don't improve even after time passes.	Perpetrator/Witness, Victim, Victims Children, Siblings, Spouse/Significant Other Parents/Caregivers
Revictimization	Occurs when the victim is attacked by their social network, religious institution, or via the legal process	Victim, Victims Children, Siblings, Spouse/Significant Other, Parents/Caregivers
Cognitive Dissonance	Discomfort, and psychological stress experienced when a person's belief clashes with new information received, wherein they try to find a way to resolve the contradiction to reduce their discomfort	Perpetrator/Witness, Victim, Victims Children, Siblings, Spouse/Significant Other Parents/Caregivers
Secondary, or Vicarious Trauma	Learning about unexpected or violent death, serious harm, or threat of death or injury experienced by another person	Victims Children, Siblings, Spouse/Significant Other Parents/Caregivers, Interested Persons
Compassion Fatigue	The convergence of secondary traumatic stress (STS) and cumulative burnout (BO), a state of physical and mental exhaustion caused by a depleted ability to cope with one's everyday environment. CF can lead to more serious mental health conditions such as PTSD, and maladaptive coping.	Victims Children, Siblings, Spouse/Significant Other Parents/Caregivers, Interested Persons

Conceptual Model of the Multifactorial Determinants of Health For Persons Experiencing ACEs Related Moral Injury



Opportunity for Research

- Impaired trauma recovery is one possible mechanism to explain the relationship between ACEs and adverse psychiatric symptoms in adulthood (Barlow et al., 2017; Iversen et al., 2007; Sareen et al., 2013).
 - Possible mechanisms noted in the literature include:
 - Unresolved psychological and emotional consequences resulting from ACEs (e.g., guilt, shame, or betrayal, etc.)
 - Emotion regulation difficulties that may impair recovery following adult trauma and increase susceptibility to PTSD and other adverse mental health outcomes.
- Despite consistent findings that ACEs negatively impact adult mental health, studies exploring the mechanisms through which ACEs exert their effect are limited (Cloitre et al., 2019).
- **Launching an International ACEs Moral Injury Study 2023**



Summary of ACE Related MI

- Adverse childhood experiences (especially child sexual abuse) are moral injuries that can significantly alter one's worldview, impact the child's spiritual formation, and increase their risk for MI.
- Moral injury may result in existential and spiritual trauma for the perpetrators, witnesses, and victims involved in PMIEs (e.g., domestic violence, crime, war, and ACEs).
- Spirituality enhances resilience and serves as a protective factor against the psychological distress caused by hardship, loss, and moral injuries.
- Unresolved spiritual trauma and the loss of spiritual resilience can have a devastating impact on the mental and physical health, wellbeing and life chances for the victim, their family of origin, and their spouse, and may have lasting intergenerational impacts.
- Psychological distress may lead to psychiatric disorders, or a condition known as toxic stress, a form of chronic stress which leads to high-risk for adverse mental and physical health outcomes.



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Questions?