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From Survival to Thriving:

The Evolution and Future of Posttraumatic Stress Evaluation and Treatment

NATIONAL GRAND ROUNDS
CLINICAL CARE OF SURVIVORS OF TORTURE

Sofia E Matta, MD
Home Base National Center of Excellence
Senior Director of Medical Services
September 4, 2025

Harvard Program in Refugee Trauma

Disclosures

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Military Technology Enterprise Consortium
General Dynamics Information Technology

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Learning Objectives

By the end of this session, participants will be able to:

- **Identify** at least three specific challenges in evaluating and treating Posttraumatic Stress Disorder (PTSD) in survivors of torture (SOT), including cultural and systemic barriers.
- **Describe** the neurobiological underpinnings of PTSD and chronic stress, and how they relate to long-term health outcomes in SOT populations.
- **Discuss** evidence-based therapies and integrative interventions, including acupuncture protocols and critical care-informed approaches, tailored for SOT.
- **Assess** the potential of emerging technologies (e.g., neuromodulation, wearables) to enhance PTSD treatment and resilience-building in culturally diverse trauma survivors.

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Reframing Posttraumatic Stress Disorder (PTSD)

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Reframing PTSD

- Defining Fear, Anxiety, Acute Stress Disorder (ASD), PTSD
- Exposure to trauma is common with 70% experiencing a traumatic event in their lifetime
- **Fear** is a subjective feeling evoked by danger, real or imagined, rooted in the brain's ability to anticipate threats, even those unlikely to occur
- **Fear:** experienced internally, recognized externally: freezing, trembling, and frightened facial expressions
- Activates neural circuits essential for survival, enables rapid responses to threats, enhances the ability to protect yourself in life-threatening situations

Šimić et al, 2021

Reframing PTSD

Anxiety

- Normal response to stress
- Feelings of worry, concern, or nervousness
- Can be beneficial in certain situations

Anxiety Disorders

- Excessive fear or heightened anxiety
- Symptoms: rapid heartbeat, fast/shallow breathing, sweating, muscle tension, dizziness, trembling, chest tightness
- Can arise before, after, or without a threat
- Impairs daily functioning

American Psychiatric Association, 2022.

Acute Stress Disorder (ASD)

- **Acute Stress Disorder (ASD)**
  - Introduced in DSM-IV (1994); reclassified in DSM-5 under Trauma- and Stressor-Related Disorder (2013)
  - Defined as acute stress reactions within the **first month after trauma**
  - Fills gap: PTSD requires symptoms >1 month
  - Shares symptoms with PTSD: reliving trauma, avoidance, hyperarousal
  - Unique feature: **dissociative symptoms** (numbness, detachment)
  - Diagnosis: ≥9 of 14 symptoms, lasting **2 days to 4 weeks**

Bryant 2011; Marshall et al 1999; APA 2013; APA 2022

Posttraumatic Stress Disorder

- **Historical Evolution of PTSD**
  - *Melancholy, Nostalgia, DaCosta Syndrome, Soldier's Heart* – U.S. Civil War
  - *Shell Shock* – World War I
  - *Battle Fatigue / Combat Neurosis* – World War II
  - *Concentration Camp Syndrome* – Post-WWII
  - *Delayed Stress* – Vietnam War
- Formal diagnosis of **PTSD** introduced in DSM-III (1980)

Posttraumatic Stress Disorder

- **Relevance Beyond War**
  - Displacement & Refugee Trauma
  - Torture, Hostage, & Human Rights Abuses
  - Natural Disasters
  - Critical Illness
  - Community & Collective Trauma

Figure 1: Posttraumatic Stress Disorder Diagnostic Criteria

A: Exposure	B: Intrusion (1+)	C: Avoidance (2+)	D: Negativity (2+)	E: Hyperarousal (2+)

• Direct Exposure
• Actual
• Threatened
• Serious Injury
	• Repeated, disturbing:
	  • Memories
	  • Dreams
	  • Re-experiencing
	  • Emotional or physical reactions to reminders
		• Memories
		• Thoughts
		• Feelings
		• Reminders of Trauma
			• Trouble with:
			  • Cognition
			  • Mood
			  • Memory
			• Negative beliefs (self or others)
			• Blaming
			• Fear, horror, or guilt
			• Loss of interest
			• Feeling distant or disinterested
				• Irritability
				• Aggression
				• Hypervigilance
				• Easily startled
				• Increased risky behaviors

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Braford MB, Fisher DR, Matta SE. *Psychiatr Ann*. 2025 (in press)

Table 2.

TRAUMA Mnemonic: Clinical Presentation of Posttraumatic Stress Disorder (PTSD)[a]

- ***T****raumatic* event occurred in which the person experienced, witnessed, learned about (or experienced repeated or extreme exposure to aversive details of trauma) actual or threatened serious injury, death, or sexual violence or threat.
- The person ***R****e-experiences* such traumatic events by (1 or more): intrusive memories, recurrent distressing dreams, dissociative reactions (eg, flashbacks), psychological distress at exposure to cues, marked physiological reactions to cues.
- ***A****voidance* (1 or both): avoidance of or efforts to avoid distressing memories, thoughts, or feelings about traumatic events or avoidance of or efforts to avoid external reminders (eg, activities, places, persons, or events) associated with the traumatic experience.
- Symptoms are distressing and cause significant impairment in social, occupational, and interpersonal functioning (patients are ***U****nable to function*).
- These symptoms last more than 1 ***M****onth* and involve negative alternations in cognitions and ***M****ood* associated with the traumatic event.
- The person has marked ***A****rousal* and reactivity associated with the traumatic event(s) as evidenced by 2 (or more of the following): irritable behavior and angry outbursts, reckless or self-destructive behavior, hypervigilance, exaggerated startle response, problems with concentration, sleep disturbance.

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Matta SE et al. 2025 doi:10.4088/PCC.24f03899

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Understanding PTSD Today

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PTSD Prevalence & Risk Factors

- **Global prevalence**: ~5.6% lifetime risk after trauma (Koenen 2017)
- **High-risk occupations**: emergency responders, service members, veterans, ICU survivors, survivors of torture, women, Indigenous communities
- **U.S. prevalence**: 3.4–26.9%
  - Highest among **American Indian/Alaska Native women**
  - Disparities: **Black, Latinx/Hispanic, and Native American** groups > White individuals (Schein 2021)
- **Risk factors**:
  - **Genetics** (30–40% heritable) (Ressler 2022)
  - Adverse Childhood Experiences (ACES), adult trauma, sexual trauma
  - Social determinants of health (SDOH)

Physical Abuse	Environmental / Deprivation	Psychological / Other
Beating, kicking, striking with objects	Exposure to heat, sun, strong light	Threats, humiliation
Beating to the head	Exposure to rain or cold, sustained immersion in water	Mock execution
Blows to the ears	Overexertion, hard labor	Isolation, solitary confinement
Beating to the soles of feet with rods	Exposure to unhygienic conditions	Blindfolding
Suspension from a rod by hands and feet	Sleep deprivation	Being made to witness others being tortured
Burning	Starvation	Being forced to write confessions numerous times
Insertion of needles under toenails or fingernails	Forced standing	Sexual humiliation
Nontherapeutic administration of medicine	Being placed in a sack, box, or small space	Rape, mutilation of genitalia
Being shocked repeatedly by an electrical instrument	Near-drowning or suffocation	
	Having urine or feces thrown / forced to handle excrement	

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Most Common Forms of Torture

(from the Harvard Trauma Questionnaire)

Mollica RF. *N Engl J Med*. 2004. doi:10.1056/NEJMp048141

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Understanding the Effects of Trauma and Traumatic Events to Help Prevent, Mitigate and Foster Recovery for Individuals, Organizations and Communities
A Program of Uniformed Services University, Our Nation's Federal Medical School, Bethesda, Maryland • www. usuhs.mil/csts/

The Impact of Kidnapping, Shooting and Torture on Children

https://www.cstsonline.org/

Children around the world are all too often exposed to violence that is both intentional and harmful. Numerous examples of such violence exist in the United States. School shootings have traumatized many children as victims and as witnesses. The U.S. Department of Justice (USDOJ) documents 3,200–4,600 non-familial abductions each year. The USDOJ also reports that approximately 400,000 refugee survivors of torture currently live in the United States, a significant portion of which are children. The recent hostage-taking and shooting of Amish children in Pennsylvania remind us that torture occurs in the U.S. as well as in other countries.

Children around the world are all too often exposed to violence that is both intentional and harmful.

a sense of inertia on the part of official agencies in responding to the needs of people. Simple, clear and sensitively worded communication may reduce the occurrence of such community reactions.

Useful Information

The following information can be useful for those who care for children exposed to coercive trauma:

- Trauma, in general, and coercive trauma specifically, impacts children differently than adults. Children do not have the psychological mechanisms in place to

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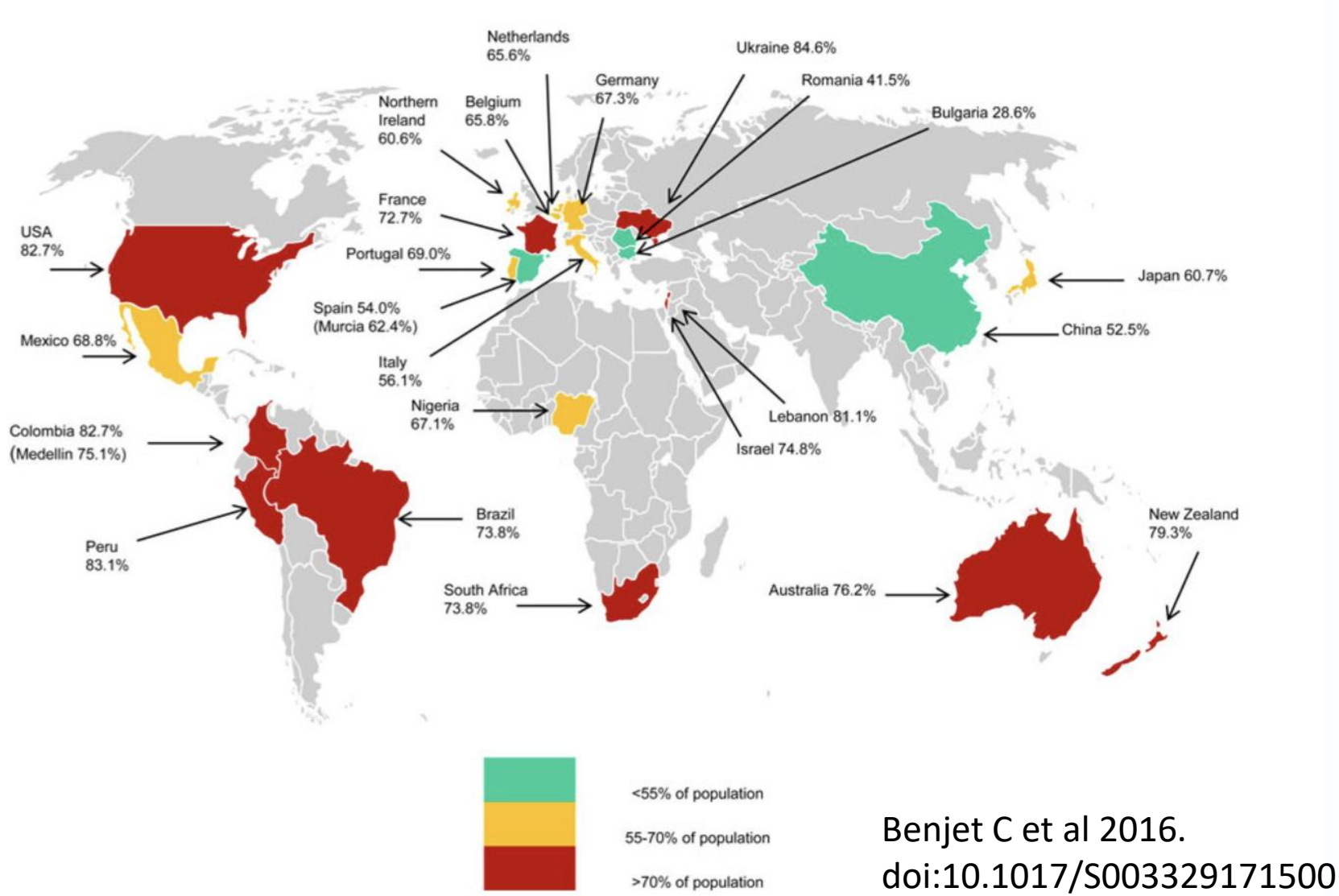
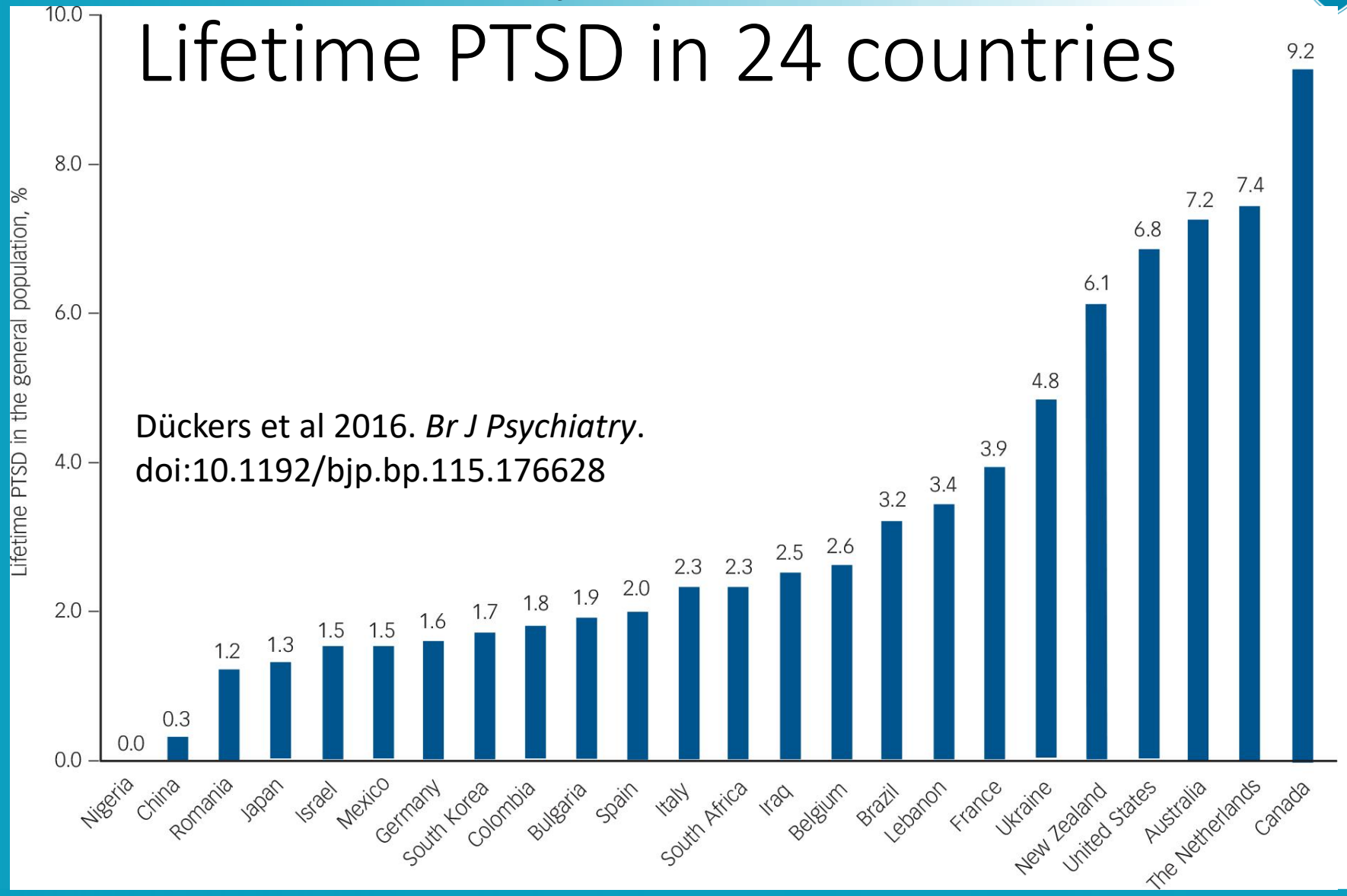
Global Burden of Trauma



- 70% experienced a traumatic event
- Lowest: Bulgaria 28.6%
- Highest: Ukraine: 84.6%
- 30.5% had 4 or more events
- Most common traumatic events:
  - Death
  - Serious injury
  - Sexual violence
  - Unexpected death of a loved one
  - Mugging
  - Life-threatening vehicle accident
  - Life-threatening illness or injury

Benjet C et al 2016.
doi:10.1017/S0033291715001981

Vulnerability Paradox: Lifetime PTSD in 24 countries



Dückers et al 2016. *Br J Psychiatry*. doi:10.1192/bjp.bp.115.176628

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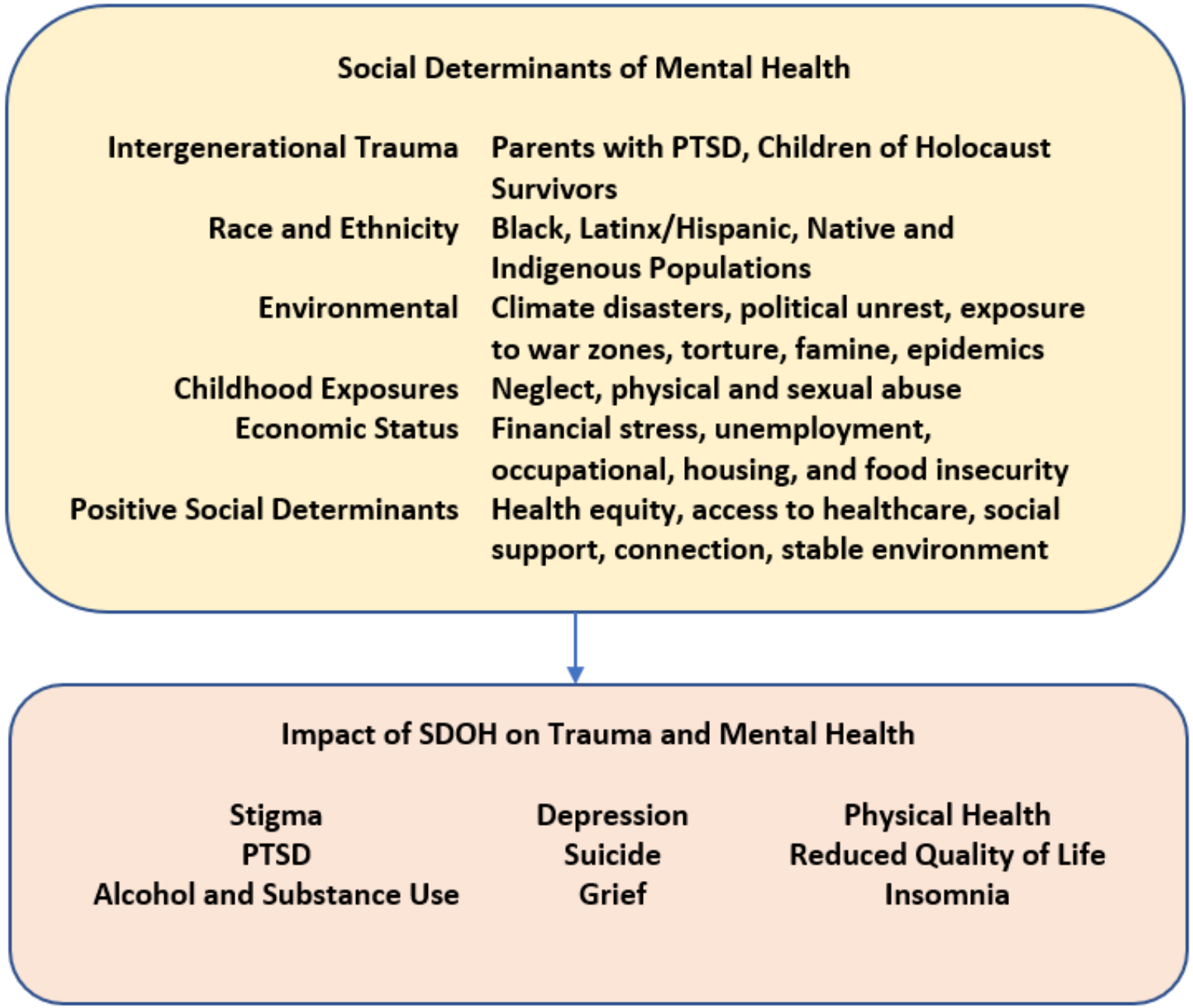

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Social Factors and PTSD

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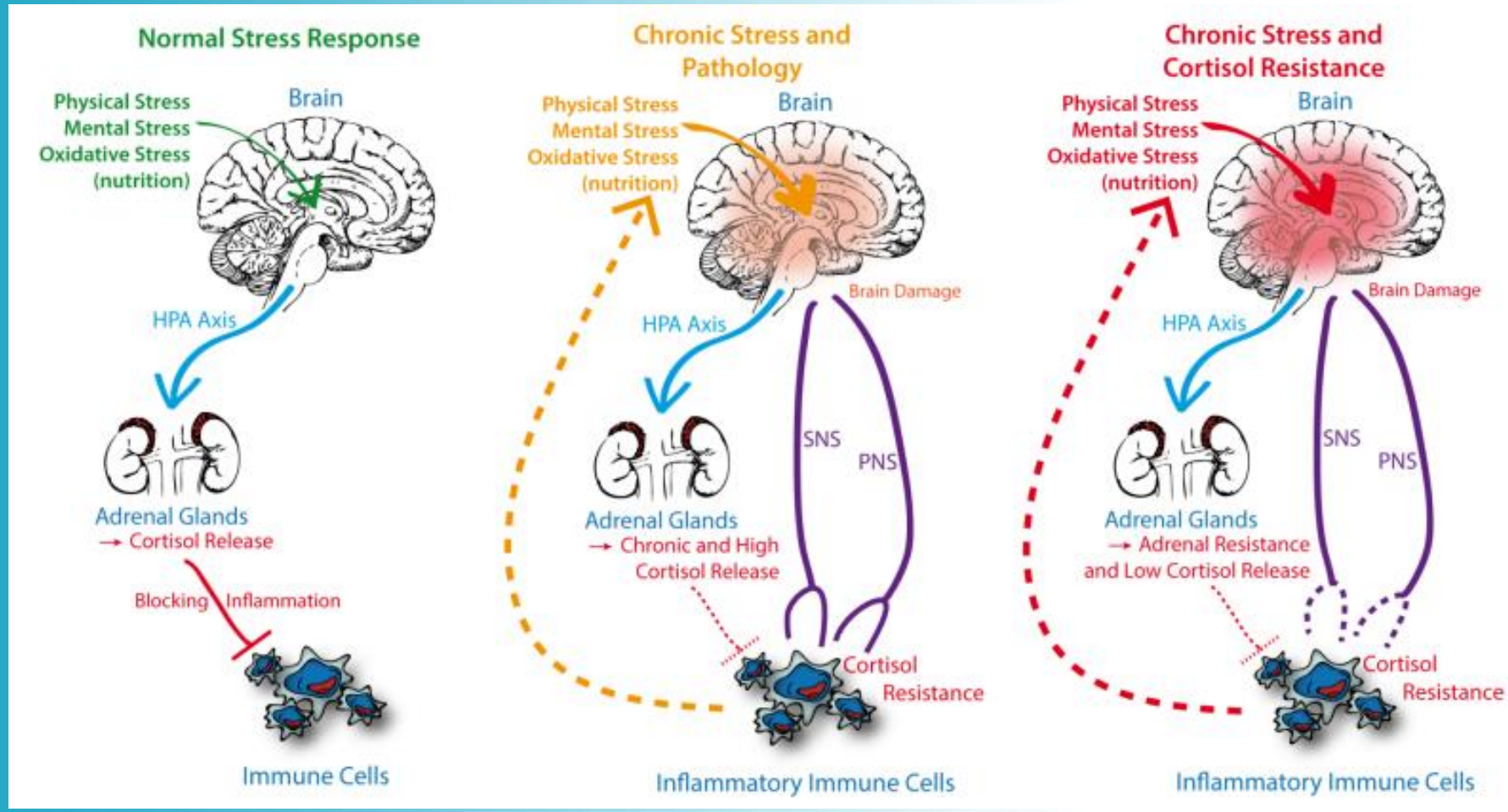
Braford MB, Fisher DR, Matta S, 2024.

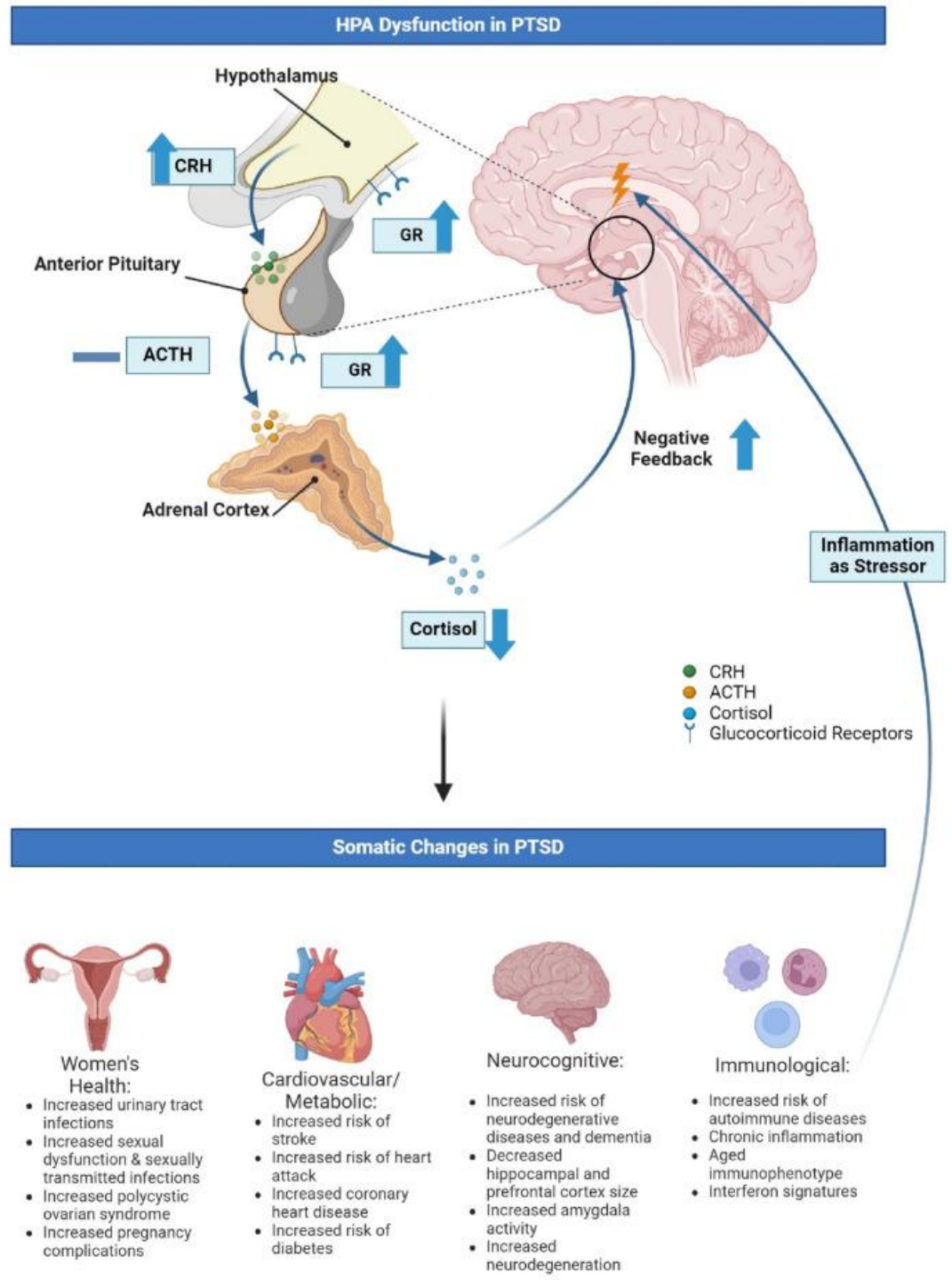
Role of stress in hypothalamic pituitary adrenal (HPA) axis, cortisol and nervous system



Vashist, Schneider *J Basic Applied Sci* 2014 10:177-182. doi: 10.6000/1927-5129.2014.10.25

PTSD, HPA axis, and Physical Illness

- Cardiovascular Disease
  - Increased risk of stroke, heart attack
- Diabetes
- Chronic inflammation
- Epigenetic aging
- Autoimmune disorders
- Neurocognitive disorders
- Women's health complications
  - Preterm birth, polycystic ovarian syndrome, and endometriosis



Lawrence S, Scofield RH. 2024 doi:10.1016/j.bbih.2024.100849

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Clinical Evaluation and Diagnostic Tools

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Table 3.

Differential Diagnosis of PTSD

Diagnosis	Special features distinguishing from PTSD
Adjustment disorders	Stressor can be any severity or type rather than that required by PTSD Criterion A
Other posttraumatic disorders and conditions	If the symptom response pattern to the extreme stressor meets criteria for another mental disorder, these diagnoses should be given instead of (or in addition to) PTSD
Acute stress disorder	Symptom pattern in acute stress disorder is limited to a duration of 3 days to 1 month following exposure to the traumatic event
Anxiety disorders and OCD	Not related to an experienced traumatic event: recurrent intrusive thoughts of OCD, arousal and dissociative symptoms of panic disorder, avoidance, irritability, and anxiety of generalized anxiety disorder
Major depressive disorder	Not related to an experienced traumatic event, does not include any PTSD criterion B or C symptoms, nor does it include a number of symptoms from PTSD criterion D or E
Personality disorders	Personality disorders typically emerge in adolescence and young adulthood before the age of 18. Interpersonal difficulties would be expected independently of any traumatic exposure
Dissociative disorders	May or may not be preceded by exposure to traumatic event or may or may not have co-occurring PTSD symptoms
Conversion disorder (functional neurological symptom disorder)	New onset of neurological or somatic symptoms that cannot be explained by a medical or neurological condition, however within the context of posttraumatic distress might be an indication of PTSD
Psychotic disorders	Flashbacks in PTSD must be distinguished from illusions, hallucinations, and other perceptual disturbances
TBI	It is often difficult to distinguish between symptoms of trauma-related stress disorders and postconcussive symptoms, as they have many similar features. However, reexperiencing and avoidance are more characteristic of PTSD (and not the effects of TBI)

Abbreviations: OCD = obsessive-compulsive disorder, PTSD = posttraumatic stress disorder, TBI = traumatic brain injury.

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Matta SE et al. 2025 doi:10.4088/PCC.24f03899

Table 1.

Useful Measurement Tools

Scale/measurement	Description
PC-PTSD-5[a]	A 5-item screen to identify individuals with probable PTSD in primary care settings. Further screening is required, such as a structured interview using the CAPS or self-report assessment using the PCL-5.
CAPS[a]	A 30-item structured interview that is the gold standard PTSD assessment. It evaluates symptom onset, duration, subjective distress, and the impact of symptoms on social and occupational functioning, as well as improvement since last CAPS assessment.
PCL-5[a]	A 20-item standardized self-report measure assessing PTSD symptoms and severity based on *DSM-5* criteria. It is useful for screening individuals for PTSD, making a provisional PTSD diagnosis, and monitoring symptom changes during or after treatment.
C-SSRS[b]	Also known as the Columbia Protocol, this tool supports suicide risk assessment through a series of simple, plain language questions to identify suicide risk, assess the severity and immediacy, and guide appropriate intervention.

[a]Available at https://www.ptsd.va.gov/professional/assessment/screens/index.asp.
[b]Available at https://cssrs.columbia.edu/the-columbia-scale-c-ssrs/about-the-scale/.
Abbreviations: CAPS = Clinician-Administered PTSD Scale for *DSM-5*, C-SSRS = Columbia-Suicide Severity Rating Scale, PCL-5 = PTSD Checklist for *DSM-5*, PC-PTSD-5 = Primary Care PTSD Screen for *DSM-5*, PTSD = posttraumatic stress disorder.

Matta SE et al. 2025 doi:10.4088/PCC.24f03899

Measures of Spirituality, Combat Exposure, Trauma, Mental Health and Psychosocial Functioning

Category	Measure
Combat Exposure	Combat Exposure Scale (CES)
	Deployment Risk and Resilience Inventory (DRRI)
	Military to Civilian Questionnaire (M2C)
Trauma History	Trauma History Screen (THS)
	Harvard Trauma Questionnaire (HTQ)
	Integration of Stressful Life Events Scale (ISLES) and ISLES-SF
	Adverse Childhood Experiences Scale (ACES)
	Traumatic Life Exposures Questionnaire (TLEQ)
	Impact of Event-Revised Scale (IER-S)
Moral Injury	Moral Injury Symptoms Scale (MISS) (many forms)
	Moral Injury Outcome Scale (MIOS)
	Expressions of Moral Injury Scale-Military version (EMIS-M)
	Moral Injury Event Scale (MIES)
	Laufer-Parsons Guilt Inventory (LPGI)
	Views of Suffering Scale
Spiritual and Religious Scales	Religious Coping Scale (R-COPE) and Brief R-COPE
	Belief Into Action Scale (BIAC)
	Duke University Religion Index (DUREL)
	Religious and Spiritual Struggles Scale (RSSS)
	Functional Assessment of Chronic Illness Therapy Spiritual Wellbeing (FACIT-SWB)
	Spiritual Well Being Scale (SWBS) including Existential and Religious subscales (ESWB and RSWB)
Positive Psychological Factors	Posttraumatic Growth Inventory (PTGI) and PTGI-Short Form
	Connor-Davidson Resilience Scale (CD-RISC-10)
	General Trust Scale (GTS)
	Personal Meaning Index
	Index of Self-Forgiveness
	Forgiveness scale
	Adult Trait Hope Scale (ATHS)
Other Measures	UCLA Loneliness Scale (Revised and 3-item adapted)
	World Health Organization Quality of Life (WHOQOL)-Brief
	Beck Hopelessness Scale (BHS)
	Maslach Burnout Inventory (MBI)
Suicide/Suicidal Behavior and Safety Planning	Columbia Suicide Severity Rating Scale (C-SSRS)
	Stanley Brown Safety Planning Intervention

*available in over 30 languages

Adapted from Matta SE et al. (in review)

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The HTQ-5: revision of the Harvard Trauma Questionnaire for measuring torture, trauma and DSM-5 PTSD symptoms in refugee populations

S. Megan Berthold [1], Richard F. Mollica[2], Derrick Silove[3], Alvin Kuowei Tay[3], James Lavelle[2], Jutta Lindert[4]

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Table 3 SPIESS: culture-specific functioning.
The following are symptoms that people sometimes have after experiencing hurtful or terrifying events in their lives. Please read each one carefully and decide how much the symptoms bothered you *in the past week*

Skills and talents – skills before stressful experiences are no longer useful or valued, less skills to cope

Physical impairments – feeling exhausted, pain, sick, too sick, body has gone down hill

Intellectual functioning – poor memory, overwhelmed by work, unable to make daily plans

Emotional functioning – feeling split into two people, blame, guilt, hopeless, ashamed

Social relationships – feeling people don't understand, humiliated, no trust in others

Spiritual/existential concerns – feeling powerless to help others, betrayl, need for revenge

VERITAS
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Berthold SM et al. 2019.
doi:10.1093/eurpub/cky256

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Prevention and Evidence-Based Management Strategies

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Prevention and Management Strategies

Prevention	**Educational programs, community support services, Trauma-Focused Cognitive Behavioral Therapy (TF-CBT)**
Psychotherapies	**Evidence-based therapies: TF-CBT, Prolonged Exposure, Cognitive Processing Therapy, Eye Movement, Desensitization, and Reprocessing**
Medications	**Paroxetine, sertraline, venlafaxine, prazosin**
Positive Psychiatry	**Resilience, Optimism, Spirituality, Wisdom, Compassion, Posttraumatic Growth**
Health Equity	**Access to Healthcare**

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Braford MB, Fisher DR, Matta S, 2024.

Table 4.

Recommended Pharmacotherapy for PTSD

Medication	Mechanism of action	Typical dose	Indication/evidence	Common side effects	Serious reactions	Caution/other information
Sertraline[a]	SSRI	50–200 mg po daily Can start at a lower dose (eg, 25 or even 12.5 mg) to help improve tolerability and gradually titrate up	PTSD, MDD, OCD, panic disorder, PMDD, social anxiety disorder	Fatigue, sedation, anxiety, agitation, hyperactivity, nausea, diarrhea, weight gain or loss, tremor, sexual dysfunction, dry mouth, constipation, palpitations, fever, joint pain	Hypomania/mania, suicidality, depression exacerbation, serotonin syndrome, SIADH, bleeding, SJS, TEN, hyponatremia, hypoglycemia, priapism, arrhythmia, QT prolongation, torsades de pointes, rhabdomyolysis, hepatotoxicity, withdrawal syndrome	Inhibits CYP450 2D6 and 3A4
Paroxetine[a]	SSRI	10–60 mg po daily immediate- and extended-release formulations	PTSD, MDD, OCD, social anxiety disorder, GAD, PMDD, vasomotor symptoms, panic disorder	Sedation, insomnia, anxiety, agitation, nausea, weight gain, tremor, sexual dysfunction, dry mouth, palpitations	Hypomania/mania, suicidality, depression exacerbation, serotonin syndrome, SIADH, bleeding, SJS, TEN, glaucoma, hyponatremia, hypoglycemia, seizures, priapism, extrapyramidal side effects, anaphylaxis, withdrawal syndrome	Inhibits CYP450 2D6 baseline creatinine
Venlafaxine[a] **Off label for PTSD**	SNRI, also inhibits dopamine reuptake	75–225 mg po daily, typical dose 150 mg extended release po daily Can start at a lower dose (eg, 37.5 mg) to help improve tolerability and gradually titrate up	MDD, GAD, SAD, panic disorder Off label: migraine prophylaxis, diabetic neuropathy, fibromyalgia, PTSD, OCD, ADHD, premenstrual dysphoric disorder	Headache, abnormal dreams, nausea constipation, diarrhea, weight loss, diaphoresis, anxiety, agitation, yawning, sexual dysfunction, decreased libido	Hypomania/mania, suicidality, serotonin syndrome, SIADH, bleeding, blood cell dyscrasias, SJS, TEN, erythema multiforme, hyponatremia, seizures, hypertension, arrhythmia, QT prolongation, torsades de pointes, pancreatitis, hepatotoxicity, withdrawal syndrome	Doses >225 mg may increase blood pressure. Liver CYP450 2D6 (primary) 3A4, active metabolite desvenlafaxine

Matta SE et al. 2025 doi:10.4088/PCC.24f03899

ABOUT HOME BASE

Home Base is dedicated to healing the invisible wounds for Veterans of all eras, Service Members, Military Families and Families of the Fallen through world-class clinical care, wellness, education and research.

HOME BASE
VETERAN AND FAMILY CARE

RED SOX FOUNDATION

Massachusetts General Hospital

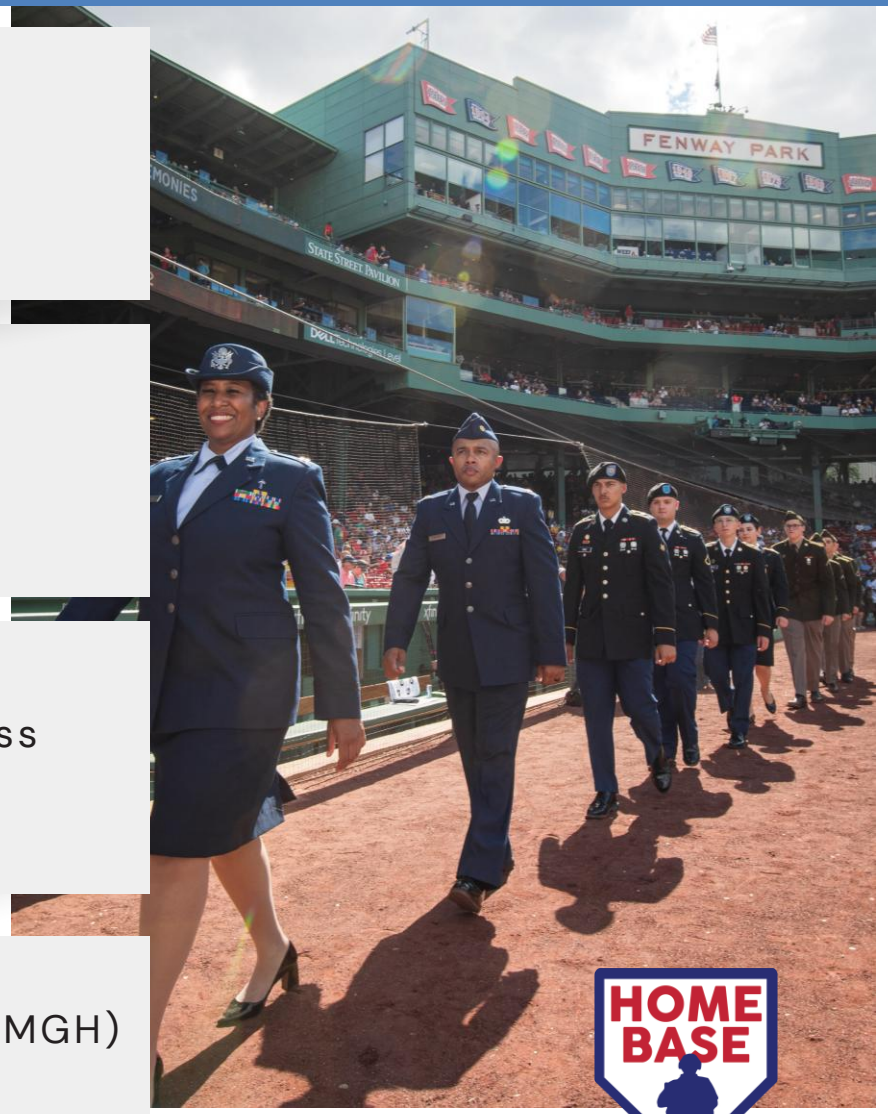
HOME BASE DIFFERENCE

We provide all treatment, support, and activities at no-cost

We serve active-duty service members and Veterans from all eras regardless of discharge status

We serve the entire family, including Families of the Fallen, who often lack access to care

We leverage the clinical expertise of world-renowned Massachusetts General Hospital (MGH) faculty to train providers in mental health treatment and provide ongoing support



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VETERAN AND FAMILY CARE
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Massachusetts General Hospital

TWO-WEEK INTENSIVE CLINICAL PROGRAM (ICP) FOR PTSD & TBI

NATIONAL PROGRAM

TWO YEAR'S WORTH OF CLINICAL CARE AND SUPPORT IN TWO WEEKS

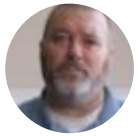
- 2-weeks, daily group and individual therapy
- Holistic approach to care that includes mindfulness and wellness practice through yoga, fitness, acupuncture, nutrition and art therapy

GOLD-STANDARD TREATMENTS:

- Prolonged Exposure, Cognitive Processing Therapy, Cognitive Behavioral Therapy, Unified Protocol for Transdiagnostic Treatment of Emotional Disorders

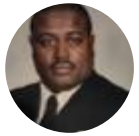
MAJOR LOGISTICS COSTS COVERED

- Treatment, lodging, transportation and meals are provided at no cost to participants
- Cohort size ranging from 6-14 individuals



"I had lost hope and was on the path to losing my family, my life, everything. Home Base gave me back my life."
-SGT Travis Peterson, Intensive Clinical Program Graduate, Georgia

"Home Base isn't another cookie-cutter program, it gave me another chance at life. Today, I'm proud to say I served. Home Base helps bring us back into society, there is help, and we are not alone. Home Base doesn't leave us behind."
- CWO3 Bill Bastable, Home Base Intensive Clinical Program & ComBHaT Program Graduate, Virginia



"Home Base made me whole again. I was able to be a better husband and a better father. They didn't just treat the symptoms; they found the problem."
-Navy Chief Darnel Johnson, Intensive Clinical Program Graduate, Florida

Harward et al. *Front Psychiatry*. 2024. doi:10.3389/fpsyt.2024.1387186.

Mission Ready Acupuncture Protocol

HOME BASE
VETERAN AND FAMILY CARE

A RED SOX FOUNDATION AND
MASSACHUSETTS GENERAL HOSPITAL PROGRAM

RED SOX FOUNDATION | Massachusetts General Hospital

Home Base Mission Ready Acupuncture Protocol

Enhancing wellness and resilience with integrative medicine.

Intensive Clinical Program	Comprehensive Brain Health and Trauma (ComBHaT) Program
Optional, up to four group auricular (ear) sessions	Optional, one individual session
Acupressure magnets or acubeads	Acupuncture with/without electrical stimulation

- Battlefield Acupuncture (BFA)
- Helms Medical Institute Auricular Trauma Protocol (ATP)
- National Acupuncture Detoxification Association (NADA) protocol

- Battlefield Acupuncture (BFA)
- Helms Medical Institute Auricular Trauma Protocol (ATP)
- National Acupuncture Detoxification Association (NADA) protocol
- Acupuncture treatments with electrical stimulation

Acute Stress and Posttraumatic Stress Disorder in Critical Care

Michalla Braford, DO; Daniel R. Fisher, MD, US Air Force Capt; Sofia E. Matta, MD

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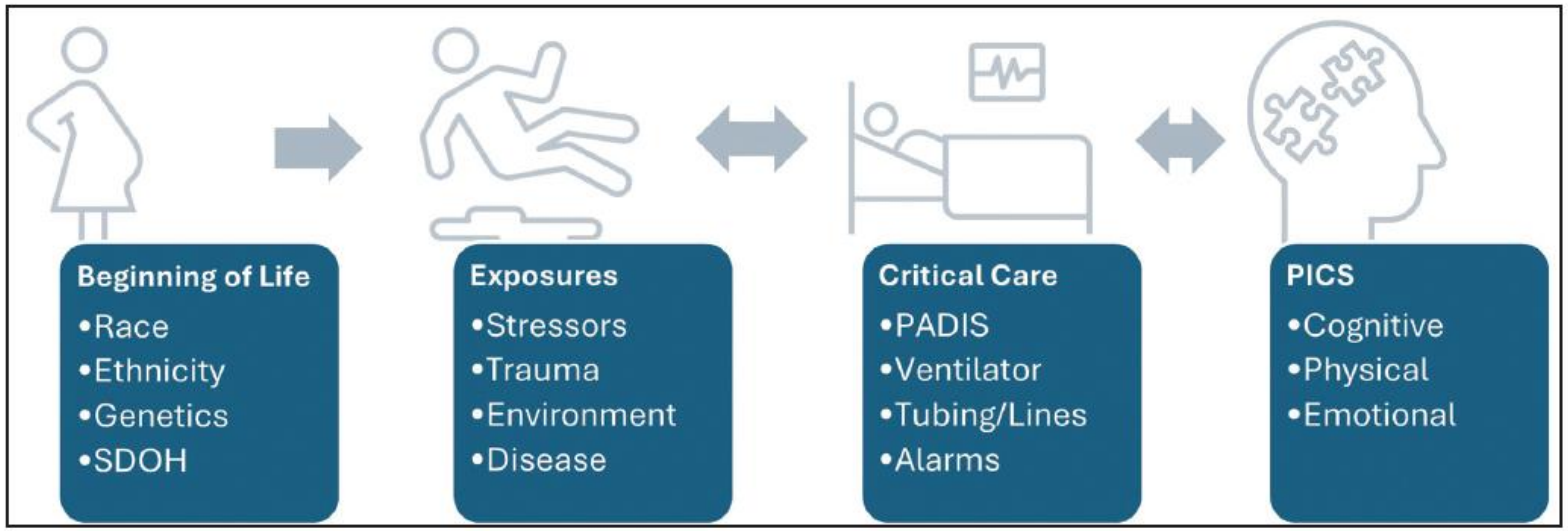

Figure 2. Roadmap of acute stress disorder and posttraumatic stress disorder in patients in intensive care units. SDOH = social determinants of health; PADIS = pain, agitation/sedation, delirium, immobility, and sleep disruption; PICS = post-intensive care syndrome.

Harvard Program in Refugee Trauma

Braford MB, Fisher DR, Matta SE. *Psychiatr Ann*. In press.

Acute Stress & PTSD in Critical Care

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Treatments for PTSD in the ICU

Nonpharmacological treatments

Intervention	Description	Pros/cons
PFA	Providing emotional support and connecting patients with social support.	Pros: Does not require a mental health expert; Can serve as a bridge to mental health care. Cons: Not formally tested in the ICU setting.
CBT	Clinical psychology service works within a trauma-ICU to provide support, coping strategies and education.	Pros: Adapted for the ICU; Reduced incidence of PTSD and need for psychiatric medications at 1-year-follow-up. Cons: Requires trained mental health staff.
ICU diary interventions	A second person's account regarding events while the patient is critically ill.	Pros: Can prevent long-term emotional disturbance (PTSD), improve health related quality of life.

VERITAS
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Braford MB, Fisher DR, Matta SE. *Psychiatr Ann*. In press.

Table 1

Screening Tools

Scale	Description
GAD-7	A 7-item self-report questionnaire that measures the severity of generalized anxiety disorder symptoms over the past two weeks.
HADS	A 14-item self-assessment tool that evaluates anxiety and depression in patients in hospital and primary care settings.
STAI	A screening tool to distinguish temporary (state) anxiety and long-term (trait) anxiety, helping assess both immediate and long-term anxiety levels.
IES-R	A self-report tool that measures the severity of distress caused by traumatic events, correlating to the PTSD symptom clusters including intrusion, avoidance, and hyperarousal.
PCL-5	A self-report measure that assesses DSM-5-aligned PTSD symptom severity.
CPSS	A self-assessment tool specifically designed to assess PTSD symptoms in children and adolescents exposed to trauma.
CAM-ICU	A screening tool to identify delirium in critical care settings, assessing inattention, altered level of consciousness and disorganized thinking.
RASS	A scale used to assess the level of sedation or agitation in patients, commonly in ICU settings. It helps providers adjust medications to ensure patient comfort while monitoring their responsiveness.

CAM-ICU = confusion assessment method-ICU; CPSS = Child PTSD Symptom Scale; DSM-5 = diagnostic and statistical manual-5; GAD = generalized anxiety disorder; HADS = Hospital Anxiety and Depression Scale; IES-R = impact of event scale-revised; PCL-5 = PTSD checklist for DSM-5; PTSD = posttraumatic stress disorder; RASS = Richmond Agitation Sedation Scale; STAI = state trait anxiety inventory.

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Pharmacological treatments		
Class	**Drugs**	**Comments**
Alpha-agonist agents	Dexmedetomidine. Guanfacine. Clonidine.	Reduce hyperarousal and anxiety. Considerations: hypotension and bradycardia.
Antipsychotic agents	Loxapine. Tiapride. Cyamemazine[a]. Risperidone. Haloperidol.[b]	Considerations: can lead to QT prolongation, heart rate disturbances, extrapyramidal symptoms, neuroleptic malignant syndrome, abnormalities in liver function tests.
Gabapentinoids	Gabapentin. Pregabalin.	Anxiolytic properties. Assists with comorbid chronic or neuropathic pain. Considerations: potential for misuse; creatinine at baseline.
Benzodiazepines	Lorazepam. Oxazepam.	Not recommended due to deleterious effects on outcomes (e.g. increased risk of delirium, delayed time to extubation, prolonged time to light sedation).
Serotonin agents	Paroxetine. Trazodone. Amitriptyline.	Use with caution during ICU admission as these drugs can contribute to bleeding risks, delirium, constipation, urinary retention, ileus, dry mouth, mucus plugging secondary to anticholinergic properties.
	Hydroxyzine.	Can be used for anxiety and mild agitation; less anticholinergic than certain antipsychotics (eg, quetiapine).

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Future of PTSD Treatment: Technology and Innovation

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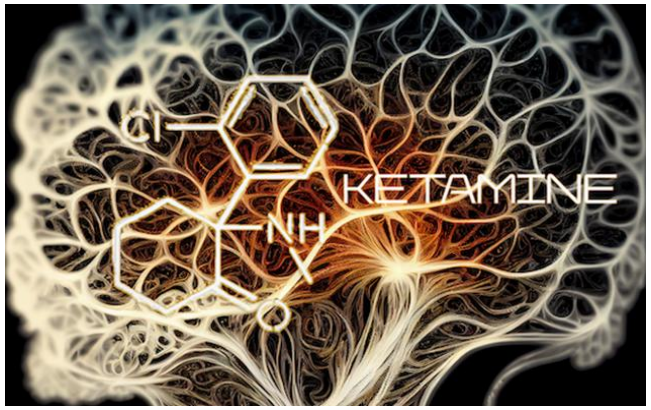
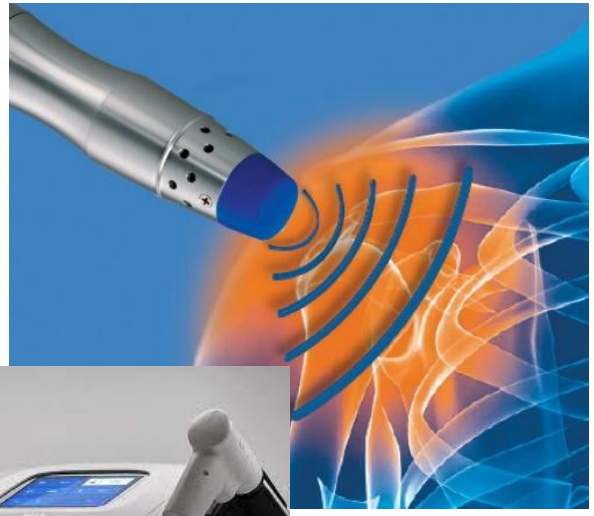
INNOVATIVE TECHNOLOGY

Prism Neuromodulation for PTSD

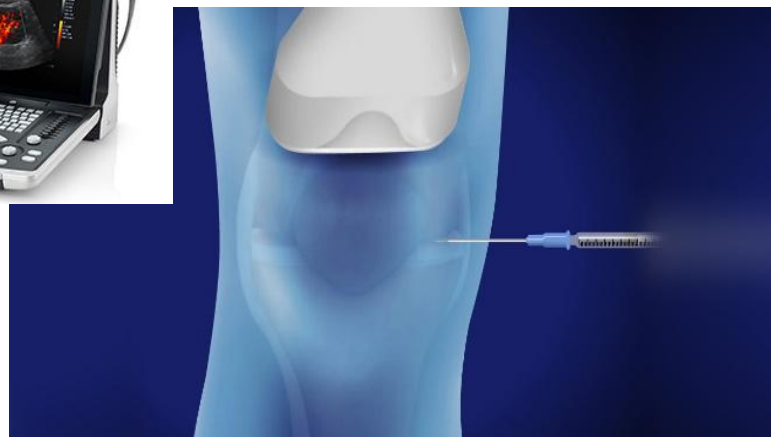


Ketamine Assisted Therapy

Trans Magnetic Stimulation for depression, pain & PTSD



Shock Wave Therapy for pain

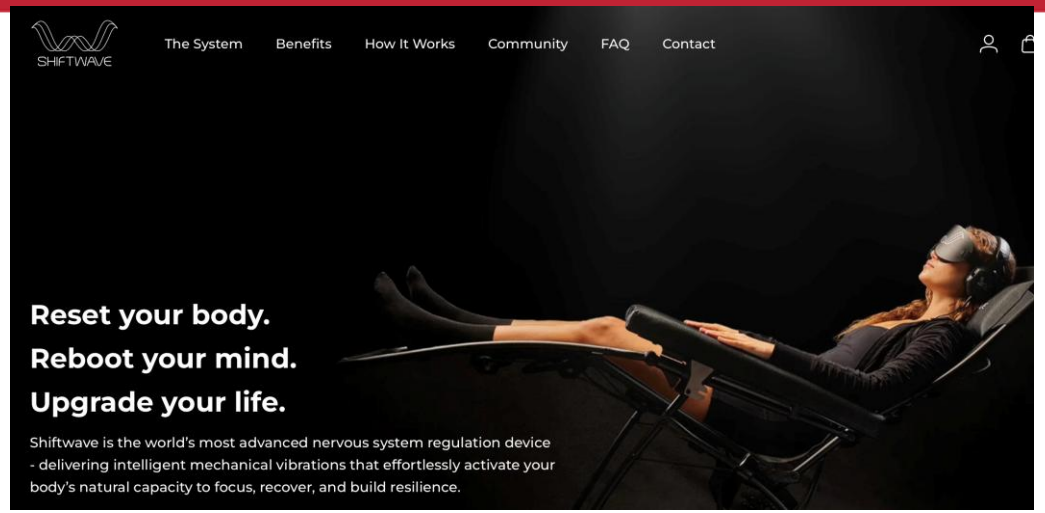


Ultra Low Flow Ultrasound with Trigger Point Injections

Senseye

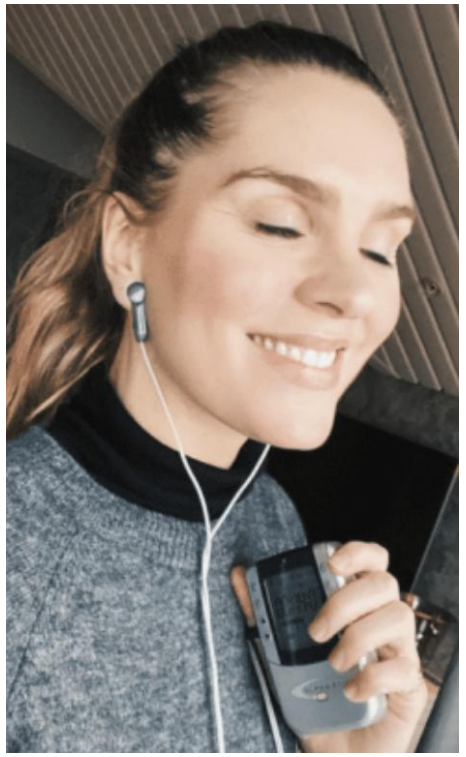
Bertec biomedical measurement for balance & mobility

INNOVATIVE TECHNOLOGY



Shiftwave: Pulsed Pressure Wave

SAVI Dual: sTMS



Alpha-Stim: cranial electrical stimulation

TAC-STIM: nVNS

gammaCore: nVNS

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From Survival to Thriving: A Positive Psychiatry Lens

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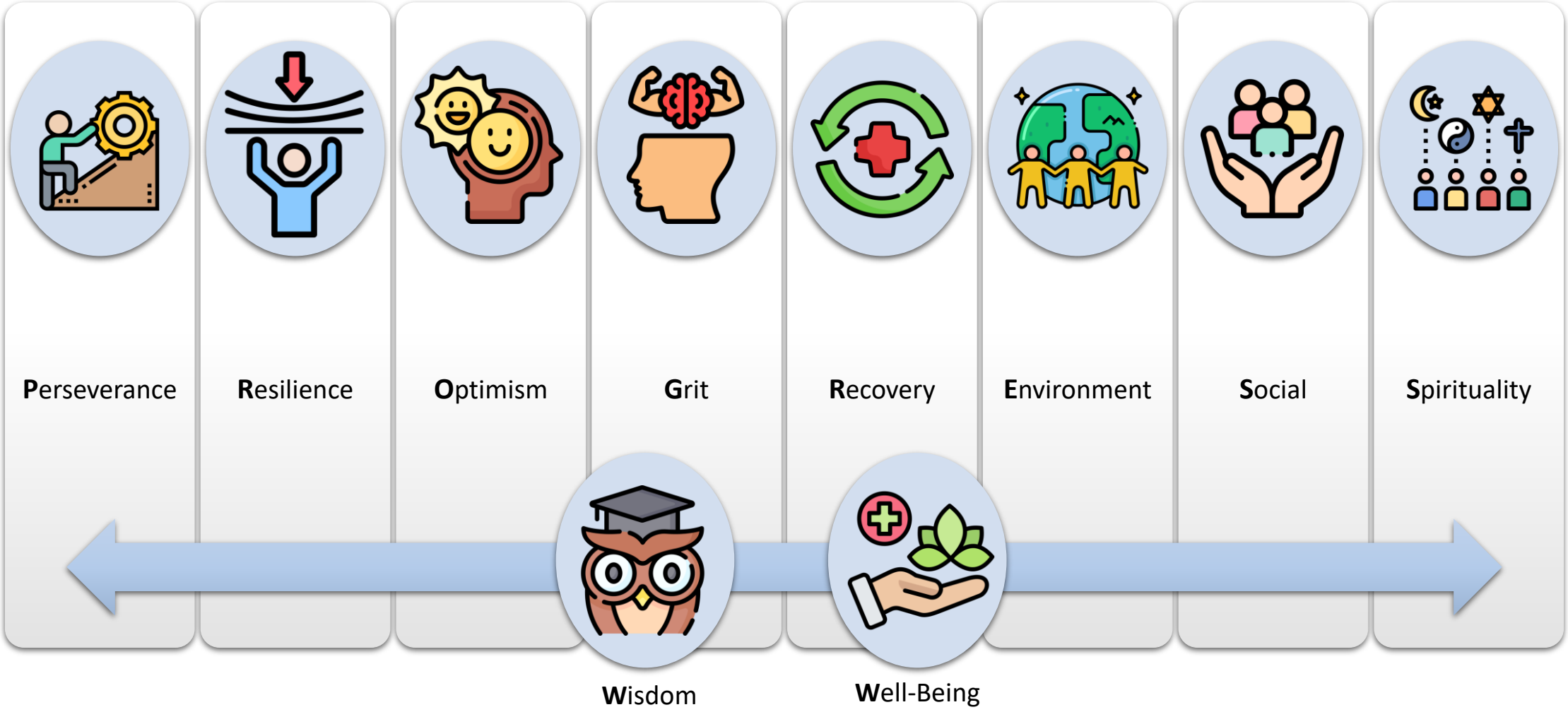
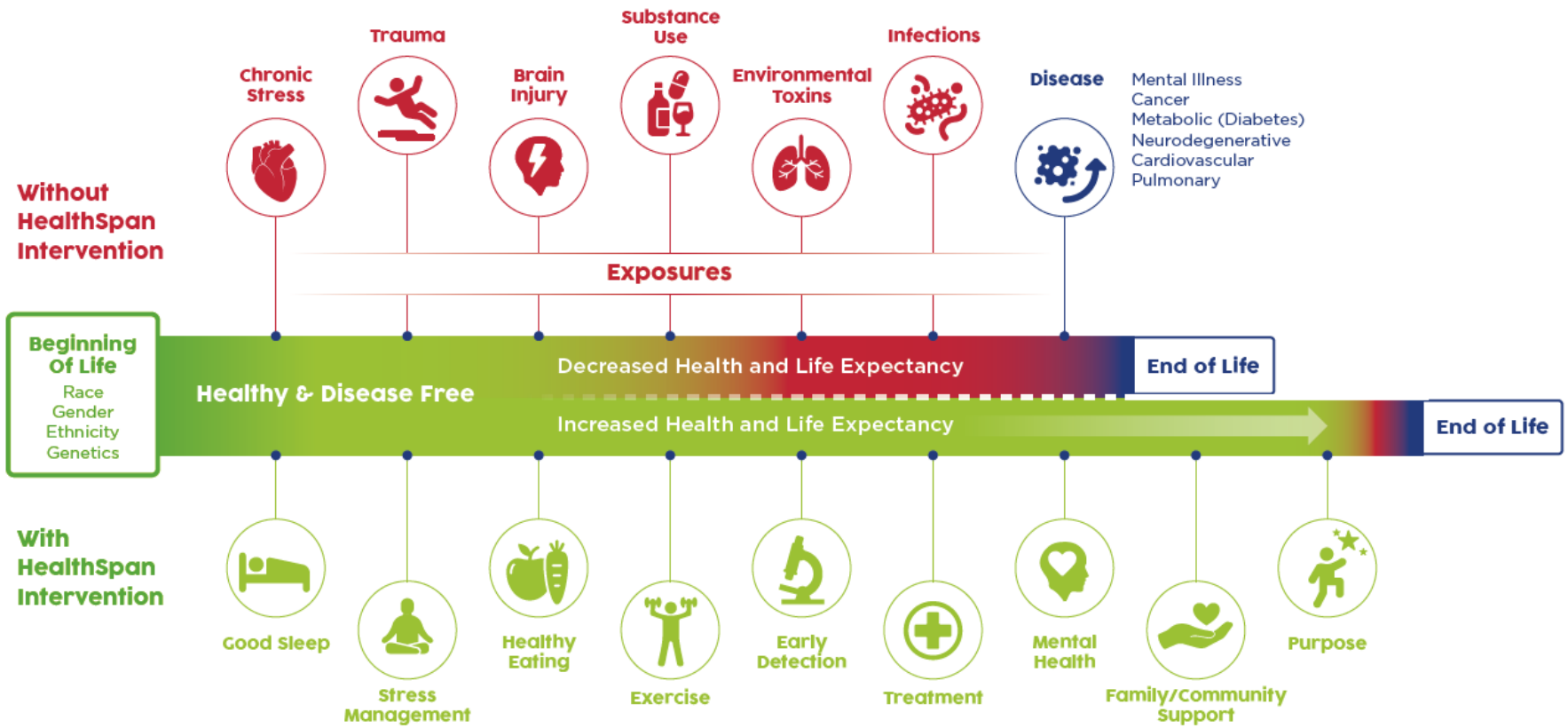
Positive Psychiatry

A Decade of PROGRESS, Wisdom, and Well-Being



HealthSpan Roadmap



HOME BASE
VETERAN AND FAMILY CARE
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Resources for Clinicians & Researchers

Harvard Program in Refugee Trauma

Resources for Clinicians & Researchers

- Harvard Program in Refugee Trauma (HPRT): global leadership in trauma and culturally-informed care. https://hprt-cambridge.org
- International Society for Traumatic Stress Studies (ISTSS): guidelines, global network, and education. https://istss.org
- Center for the Study of Traumatic Stress (CSTS): research and guidance for trauma-exposed populations. https://www.cstsonline.org
- Home Base: https://homebase.org
- - Hundreds of hours of free online CME content at www.homebase.org.
- - Trainings in PTSD, TBI, MST, integrative therapies, suicide prevention, and family resilience.
- - International and DoD collaborations, including SOF-specific and culturally tailored training programs.

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Thank You
&
Questions

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