

FY25 Traumatic Brain Injury and Psychological Health Research Program (TBIPHRP)

Focus Areas

Inclusion of classified research data within the application and/or proposing research of which the anticipated outcomes may be classified or deemed sensitive to national security concerns may result in application withdrawal. This includes, but is not limited to, research involving directed energy (e.g., photonic, radio frequency, acoustic energy, other non-kinetic sources), Anomalous Health Incidents, Havana Syndrome, and associated neurological syndromes/injuries.

The information below in italics provides additional context regarding programmatic intent but **are not required** to be specifically addressed by applications.

1. **Understand:** Research will address knowledge gaps in epidemiology and etiology of psychological health conditions and/or TBI.
 - a. Understanding of risk, protective, and biological factors contributing to an individual's vulnerability to, response to, and long-term outcomes of psychological health conditions and/or TBI.
 - *Understanding psychological health trajectories associated with trauma (e.g., acute stress reactions, adjustment disorders, PTSD) and suicidality that incorporate internal and external factors. For example, factors could include time course, demographic characteristics, career progression, history of trauma exposure, and community and cultural factors.*
 - *Understanding how the approach to psychiatric diagnosis (e.g., acute stress reactions, adjustment disorders, PTSD) in the military relates to occupational impairment and/or military separation.*
 - *Understanding the role of genetics, endophenotypes, health demographics, previous injuries or repetitive exposures, psychological health conditions, pathophysiology, and environmental factors (e.g., extreme temperatures/pressures) on TBI.*

- *Understanding the contribution of pre- and post-injury patient, family,¹ and caregiver education, as well as cultural, demographic, stigma, and bias factors that may relate to treatment-seeking and adherence.*
 - *Development and analysis of modeling from clinical data and other human data (e.g., electronic health records, exposure, training, and/or occupational data) to forecast the long-term and/or late effects of brain exposures, such as TBI, and co-occurring conditions.*
 - *Development and analysis of communication and tools/technology adoption that would facilitate clinical translation and identification of risk factors, educational barriers, social determinates of health, and other factors that may impede clinical translation.*
- b. Understanding psychological health factors or outcomes associated with sexual harassment and assault perpetration, victimization, barriers to reporting and response. Studies that ensure participant anonymity are strongly encouraged.
- *Understanding processes of shame, stigma, and institutional betrayal among sexual assault victims and their units/teams and evaluation of approaches to mitigate these experiences. Experiences of marginalized groups, male victims, and victims of intimate partner and family violence are of particular interest.*
 - *Understanding how interpersonal and individual conditions, choices, behaviors, and psychological health are influenced by organizational-level factors relate to sexual assault and harassment prevention, perpetration, and response. Measurement and analysis of organizational-level factors, such as culture, climate, and training, beyond aggregating individual perceptions, are encouraged. Research could include the progression from sexual harassment to sexual assault and factors influencing sexual harassment.*
 - *Understanding barriers to reporting sexual assault and factors that contribute to retaliation within units/teams and evaluation of approaches to mitigate barriers, prevent retaliation, and improve psychological health outcomes of victims. Research could include data from influencers, bystanders, and perpetrators, as well as environmental, structural, and demographic factors (e.g., workplace culture, climate, senior leader diversity, age, sex).*
 - *Understanding the psychological health consequences of intimate partner and family violence.*

2. Prevent and Assess: Research will address the prevention, screening, diagnosis, or prognosis of psychological health conditions and/or TBI.

¹ “Family” should be broadly defined to include not just spouses, but also parents, significant others/fiancés/partners, children, caregivers, or close friends.

- a. Identification and validation of biomarkers or other objective methods for assessment, diagnosis, prognosis, or real-time monitoring of psychological health conditions and/or TBI (including subclinical presentations) and associated sequelae of these conditions.
 - *Development of decision-making frameworks or tools that incorporate objective assessments and may consider long-term outcomes to inform return to activity/duty decisions are within scope.*
- b. Development and evaluation of approaches or tools to prevent or reduce risk of psychological health conditions and/or TBI.
 - *Evaluation of environmental sensor data in aspects related to brain health and risk from brain blast and impact exposures.*
 - *Development of innovative materials and technologies that can prevent or reduce risk of TBI.*
 - *Generation of physiological evidence regarding the safety, efficacy, and utility of candidate neuroprotective measures. Animal models, if used, should be validated and well justified within the literature and should demonstrate clear alignment to clinical populations.*
 - *Validation of objective tools/methods for assessing and real-time health status monitoring of psychological health conditions and/or TBI.*
 - *Development of clinical decision-making frameworks or tools that incorporate objective assessments and long-term outcomes to return to activity/duty decisions.*
- c. Development and evaluation of crosscutting prevention approaches to address multiple adverse outcomes such as suicide, interpersonal violence (including intimate partner and family violence), and psychological health issues are within scope.
 - *Optimized messaging for successful dissemination and implementation.*
 - *Inclusion of families² and evaluation of family impact.*
 - *Culturally acceptable approaches to reducing access to lethal means and promoting means safety for suicide and violence prevention.*
- d. Development and evaluation of solutions to support military and family readiness and increase psychological resilience in individuals to the potential negative impacts of specific military and life stressors.

² Intervention repurposing is the identification of novel indication(s) for an FDA-approved intervention.

- *Effective pharmacologic or non-pharmacologic prevention interventions. Solutions for prevention of acute stress reactions (ASRs) and PTSD or adjustment disorders may be proposed.*
 - *Preparation of Service Members and units for missions and to help reset and improve resilience between deployments.*
 - *Effective solutions to support relationships and parenting, prepare families for potential secondary trauma exposure, and empower families to access tailored support and resources.*
3. **Treat:** Research will address novel and repurposed interventions³ to improve outcomes of psychological health conditions and/or TBI. Efforts that address treatment, rehabilitation, and health services research are within scope.
- a. Interventions that promote sustained functional recovery, including interventions administered acutely, during the post-acute phase, or during the chronic phase of injury.
- *Rapid assessments and treatments for psychological health conditions. Interventions addressing adjustment disorders, ASRs, and PTSD may be proposed.*
 - *Mobile health technologies to improve mental health and well-being.*
 - *Interventions focused on sensory and motor dysfunction after brain injury.*
 - *Interventions that address neurodegenerative processes associated with TBI.*
 - *Interventions that restore cognitive reserve and functioning.*
 - *Novel therapeutic candidates based on evolving changes of pathophysiology and/or theoretical mechanisms of psychological health conditions and/or TBI.*
 - *Interventions and/or the delivery of health care services to improve the ability to treat co-occurring TBI and psychological health conditions.*
 - *Personalized medicine approaches to treatment that may include tailoring treatment to the biological and endophenotypic elements present. Treatment approaches may consider how TBI, PTSD, depression, or other psychological health conditions are interrelated.*
 - *Considerations for sequencing and optimal combinations of pharmacologic and non-pharmacologic interventions.*

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- *Effective, early interventions for delivery in rural or other resource-limited environments (e.g., far-forward military environments), and/or by non-clinicians (e.g., peers, teams, first responders/medics).*
- a. Development of postvention strategies to support individuals in workplace or community environments following a sexual assault, suicide event, or other trauma.
- b. Health services research to improve provider adoption of evidence-based practices, improve access, and reduce barriers. In addition, factors that influence treatment engagement, follow-up care, and improvement of long-term outcomes are of interest.
 - *Research of interest includes, but is not limited to individual, peer/unit/team, leader, family, caregivers, community, and enterprise level methods.*
 - *Clinical effectiveness studies comparing emerging capabilities to existing evidence-based treatments and/or the standard of care.*
 - *Identification and evaluation of methods for successful dissemination and implementation of intervention*

Focus Area inclusion and text may differ in the FY25 TBIPHRP Funding Opportunities. Refer to the announcements posted on grants.gov for final text.

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