PTSD & Psychological Health: Translating Research Into Care

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Accomplishments

Science to Service Member

Accomplishments in Psychological Health & PTSD Research

✓ **Understanding & Treating PTSD:**

- Biomarkers - Foundational science, Etiology, and Epidemiology efforts for targeted, personalized treatment to Service members
- Improved delivery of Evidence-based Treatments (EBT)
- Mindfulness training for Resilience

Accomplishments in Psychological Health & PTSD Clinical Care

✓ **Advances have been made in translating research into improved Clinical Care:**

- Embedded Behavioral Health reduces stigma
- Behavioral Health Data Portal enables precision treatment
- Provider training for evidence-based interventions – provides treatment fidelity
- Child and Family Behavioral Health System and School Behavioral Health enable Family Readiness

PTSD Program

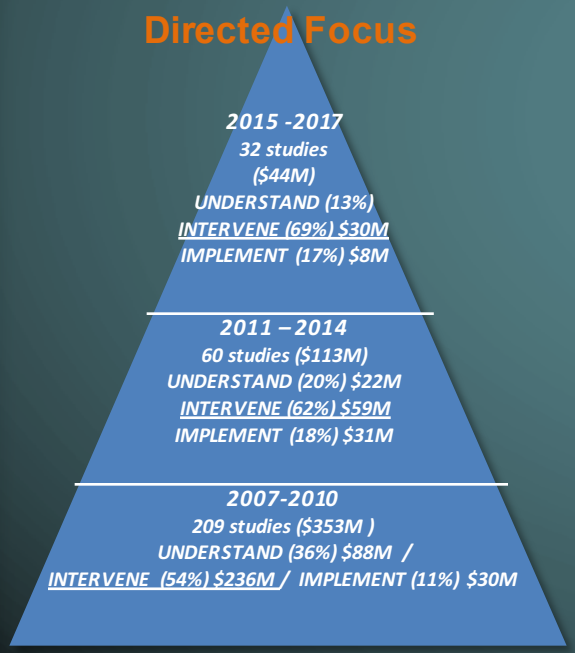
Science to Service Member

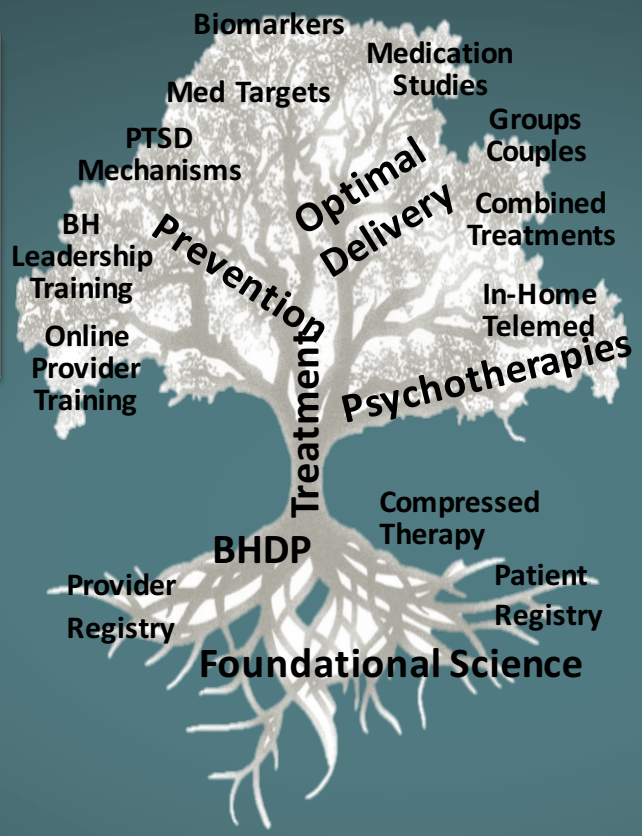
UNDERSTAND → INTERVENE → IMPLEMENT

Mission

To develop the most effective strategies to prevent and treat PTSD, reduce the impact of mental disorders, and build psychological resilience among Service members and Families

Directed Focus



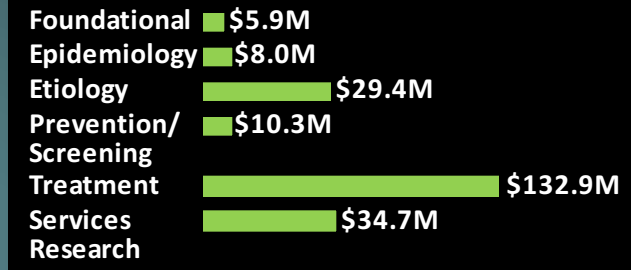


MRMC, WRAIR, WRNMMC, ASA(ALT), TRADOC, OTSG | White House, NIMH, NIDA, NIAAA, VA | Academia, Industry, Foundations (e.g., Cohen) | DCoE, DHA, Navy, AF, USMC, DARPA, USUHS

Collaborations: Army • Government • External • DoD

PTSD Research

Total Active Project Investment - $212M
Total Active Projects - 78



*Investment since 2007: 302 Projects

Key Policies

- National Research Action Plan (NRAP)
- DoDI 6490.12 Mental Health Assessments for Service Members Deployed in Connection with a Contingency Operation
- HQDA EXORD 236-12 Army Implementation of Behavioral Health System of Care (BHSOC) Embedded Behavioral Health (EBH)
- CPG Publication, OTSG/MEDCOM Policy 14-094 Update – Policy Guidance on the Assessment and Treatment of PSTD

Significant Advances

- Psychotherapies validated for Service members
- Compressed psychotherapy treatment
- Behavioral Health System of Care (BHSOC)

PTSD & Psychological Health Research Gaps

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Understanding PTSD: Efforts aimed at achieving personalized treatment

- Mechanisms of PTSD development and progression at the neurological level
- Risk and vulnerability factors
- Well-defined biologically-based subtypes of PTSD

Intervening: Improved Screening, Prevention, Treatment

- Only 2 FDA approved medications; nothing new since 2001
- Psychotherapies are moderately effective (~40-50%), but not for all individuals
- Ability to treat PTSD's other comorbidities (e.g., Alcohol Use Disorder, Sleep Disorder, Pain Disorder)

Services Research: Improving Access to Behavioral Health Care

- Reduce stigma and offer treatment options
- Provider training for evidence-based interventions – fidelity
- Evaluation of unconventional settings and modalities (e.g., telemedicine/technology-based)

Improving Resilience and Readiness

- Interventions that promote adaptability to militarily-relevant demands and enhance resilience
- Resilience training that incorporates key behavioral health outcomes
- Tools and technologies to better prevent, diagnose, and treat mental health issues such as suicide and substance abuse
- Family health & well-being

PTSD & Psychological Health Research Efforts (1 of 2)

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Understanding PTSD: Foundational science, etiology, and epidemiology efforts

- To identify objective diagnostic tools and PTSD subtypes
- Systems Biology Consortium
- Multiple Biomarker projects
- State of the Science Summit (June 2017) - identify novel drug targets for future investments

Intervening: Improved Screening, Prevention, & Treatment

- Prolonged Exposure (PE) and Cognitive Processing Therapy (CPT) are effective in military populations
  - Compressed treatment protocols, adjuncts to therapies, different treatment setting and modalities - improve compliance and reduce dropout
- Medication & Combined Therapies: Randomized Controlled Trials to test off-label uses of medications; PTSD alone and along with comorbidities such as Alcohol Use Disorder

Services Research: Improving Behavioral Healthcare, System, Quality & Options

- Behavioral Health Provider Registry (treatments they can provide) & Patient Registry (treatments they have tried): Facilitates information exchange
- Improving evidence-based treatment fidelity
- Evaluating unconventional settings & modalities (e.g., telemedicine/technology-based) vs. conventional behavioral health care

PTSD & Psychological Health Research Efforts (2 of 2)

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Evidence-based Resilience-building Interventions

- Strengths-based skills training
- Tailored training approaches
- Leadership and other external factors
- Small team interventions and training
- Mindfulness
- Cognitive-bias modification
- Neurofeedback

Substance Abuse

- Prescription opioid misuse preventive interventions
- Alcohol treatment (e.g., medications, psychotherapies, motivational interviewing approaches) with co-occurring issues (e.g., PTSD, suicidality)

Additional Behavioral Health Research Efforts

- LGBT
- Workplace violence
- Sexual assault

PTSD and Psychological Health Research Highlights

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Understanding PTSD:

- Identifying Biomarkers for risk, objective diagnosis, and PTSD subtypes
  - 3 possible panels identified for further exploration, with moderately high confidence for identifying a true PTSD case (endocrine, methylation, metabolomics panels)
- Prioritized list of drugs or compounds for future PTSD treatment research – aim for FDA approval for a new PTSD-indicated drug in next 2 years

Intervening in PTSD: Improved Screening, Prevention, & Treatment

- Compressed psychotherapy protocols (CPT & PE) increase completion rates
- Successes seen with group treatment – peer support
- Family involvement/awareness of psychotherapy treatment improves compliance and reduces dropout
- Transcranial Magnetic Stimulation (rTMS) with CPT yields continued improvement 6 months post-treatment
- Prazosin - improves sleep latency and reduces alcohol consumption

PTSD Services Research: Improving Behavioral Healthcare Delivery, Improving Access, & Reducing Stigma

- Embedded Behavioral Healthcare providers
- "Learning" healthcare record system (Behavioral Health Data Portal)
- Delivering treatment via Tele-medicine is equivalent to face-to-face, conventional behavioral healthcare
- Younger people prefer unconventional settings and modalities (e.g., telemedicine/technology-based), but choices do not lead to increased treatment completion

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