Assessment of Ongoing Efforts in the Treatment of PTSD

Phase 1

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INSTITUTE OF MEDICINE
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Committee on the Assessment of Ongoing Efforts in the Treatment of PTSD

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Statement of Task: Phase 1

- Collect data from the DoD and the VA on programs and methods to prevent, screen, diagnosis, treat, and rehabilitate service members and veterans who have PTSD
- Identify collaborative and duplicative efforts between DoD and the VA with regard to PTSD services, programs and research
- Look at studies of innovative PTSD treatment s
- Specific topics to consider include:
  - physiological markers of PTSD
  - causation of PTSD using brain imaging studies and correlation between brain region physiology and PTSD diagnoses
  - effectiveness of alternative therapies for PTSD, including use of animals
  - effectiveness of using pharmaceuticals before, during, or after a traumatic event to prevention and treat PTSD

Phase 1 Is Foundational

- Reviews current science and practice
- Identifies potential data sources and begins data collection
- Committee concluded it was important to include some recommendations because they could be implemented relatively quickly and some may support data gathering necessary for Phase 2
- Phase 2 will build on Phase 1 and will further analyze available data and address issues such as effectiveness of programs and methods, access to care—including for racial and ethnic minorities and females—and current and projected costs for treating PTSD

Committee's Approach

Information Sources

- Peer-reviewed literature, government documents, Congressional testimony, targeted Internet searches
- Open sessions to hear from service members, DoD, and VA
- Site visit to U.S. Army Base Fort Hood, Killeen, Texas
- Data requests to DoD
  - Surgeon Generals of the Army, Navy/Marine Corps, and Air Force
  - DCoE for Psychological Health and Traumatic Brain Injury
- Data requests to VA
  - Veterans Health Administration (VHA)
  - Northeast Program Evaluation Center

Committee's Approach

Data requests to Service Surgeons General and VHA included:

- Numbers of service members and veterans screened for, diagnosed with, and treated for PTSD
- Types of treatments offered (psychosocial, pharmacologic, complementary and alternative)
- Treatment delivery options (primary care clinics, outpatient mental health clinic, specialized PTSD program, inpatient/residential care)
- Duration and frequency of treatment, types of outcomes tracked, and length of tracking
- Training of mental health providers and ratio of providers to patients
- List of PTSD programs and services for prevention, screening, diagnosis, treatment, and rehabilitation (eligibility, location offered, types of treatments used, cost per patient, and outcomes tracked)

Committee's Approach

- Report focuses on PTSD that resulted from time in service
- Did not redo existing treatment guidelines including the VA/DoD guideline for management of posttraumatic stress
- Only considered related disorders and comorbidities as they affect treatment for PTSD
- Did not create an exhaustive list of PTSD programs and services in DoD and VA; instead relied on other sources and presented selective examples
- Impact of PTSD on spouses, children, family members, and care givers of service members and veterans only presented where relevant information was available

Scope of the Problem

- Estimated PTSD prevalence in OEF and OIF service members is 13-20%
- Current conflicts differ from previous ones:
  - More National Guard and reservists have been deployed
  - Nature of threats, i.e., IEDs, blast injuries
  - Forward deployment of mental health providers
- National Vietnam Veterans Readjustment Survey reanalysis estimated lifetime PTSD prevalence of 18.7%
- Estimated that only 23-40% of service members and veterans in need of mental health services receive care
- Military specific stressors include: combat, high levels of combat severity, being wounded, witnessing death, being taken captive, experiencing unpredictable and uncontrollable stress, and experiencing sexual assault

Neurobiology

•Understanding neurobiologic mechanisms of PTSD can help guide the development and use of pharmaceuticals for treatment

•No validated biomarkers for PTSD currently exist; if found would have potential to help identify those at risk for PTSD, diagnose them, guide selection of most effective treatments, and identify those at risk for relapse or symptom exacerbation

•Gene expression patterns could distinguish those who have PTSD, potentially preventing PTSD, targeting effective PTSD treatments, improving quality of life, and reducing treatment costs

Prevention

- Three types of intervention
  - for the entire population prior to exposure
  - for those exposed to trauma and thus at heightened risk for PTSD
  - for those with PTSD symptoms to prevent worsening of symptoms and improve function
- DoD resilience programs help service members prepare for exposure to traumatic events before, during, and after deployment. These programs:
  - Are not PTSD specific, but rather address mental health in general
  - Are service specific
  - None of them have been formally evaluated for effectiveness
- Early intervention for acute stress may reduce symptoms, increase function, and prevent onset of full PTSD
- Limited information available about VA prevention efforts

Screening

- Effective screening for PTSD improves health outcomes
- Screening is ineffective unless there is timely and adequate follow-up to confirm and provide appropriate intervention
- PTSD screening questions are integrated into pre and post deployment health assessments
- Both VA and DoD have integrated screening into on-site primary care practices
  - accompanied by increased placement of mental health personnel in primary care settings
  - preliminary indications that this approach is effective
- No indications that screening occurs in TRICARE contract sites

Diagnosis

- PTSD diagnosis depends on a careful and comprehensive clinical evaluation performed by a qualified professional
- The clinical interview should obtain details of:
  - frequency and severity of PTSD symptoms and other morbidity
  - lifetime history of exposures to trauma and experience of physical injury
  - medical history
  - level of function
  - quality of life; ongoing life stressors
  - prior psychiatric diagnosis and treatment
  - styles of coping with stress
  - experiences in the military
- Structured interviews may be used to supplement the clinical evaluation, but should not be sole basis of the interview

Treatment

- Multitude of treatments available for PTSD
  - Psychosocial
  - Pharmacological
  - Complementary and alternative medicine (CAM)
  - Combinations

- Treatment guidelines are available from several sources
  - Guidelines cover most treatments
  - Treatments are categorized as to efficacy
  - VA/DoD guideline among the most detailed and comprehensive

Psychosocial Treatments

- Supported by the most robust evidence (multiple RCTs)
  - Prolonged exposure (PE)
  - Cognitive therapy, including cognitive processing therapy
  - Eye movement desensitization and reprocessing
- Other psychosocial therapies were reviewed but generally supported by less robust evidence
  - CBT group therapy approaches are promising
  - Numerous other therapies are being considered
- Psychosocial therapies with open trials
  - Virtual-reality exposure is being studied as a method of delivering PE

Pharmacotherapy

- Evidence of efficacy
  - Selective serotonin reuptake inhibitors, particularly sertraline and paroxetine, and serotonin-norepinephrine reuptake inhibitors recommended as first-line treatments in VA/DoD guideline
  - Limited evidence of efficacy in U.S. veterans specifically
- Evidence for other pharmacotherapies (e.g., other antidepressants, antipsychotics, antiadrenergic drugs) is generally inconclusive
- Issues of polypharmacy, adherence, maintenance treatment, and relapse require greater study
- Effectiveness of combining psychotherapy and pharmacotherapy requires further study

Emerging Therapies

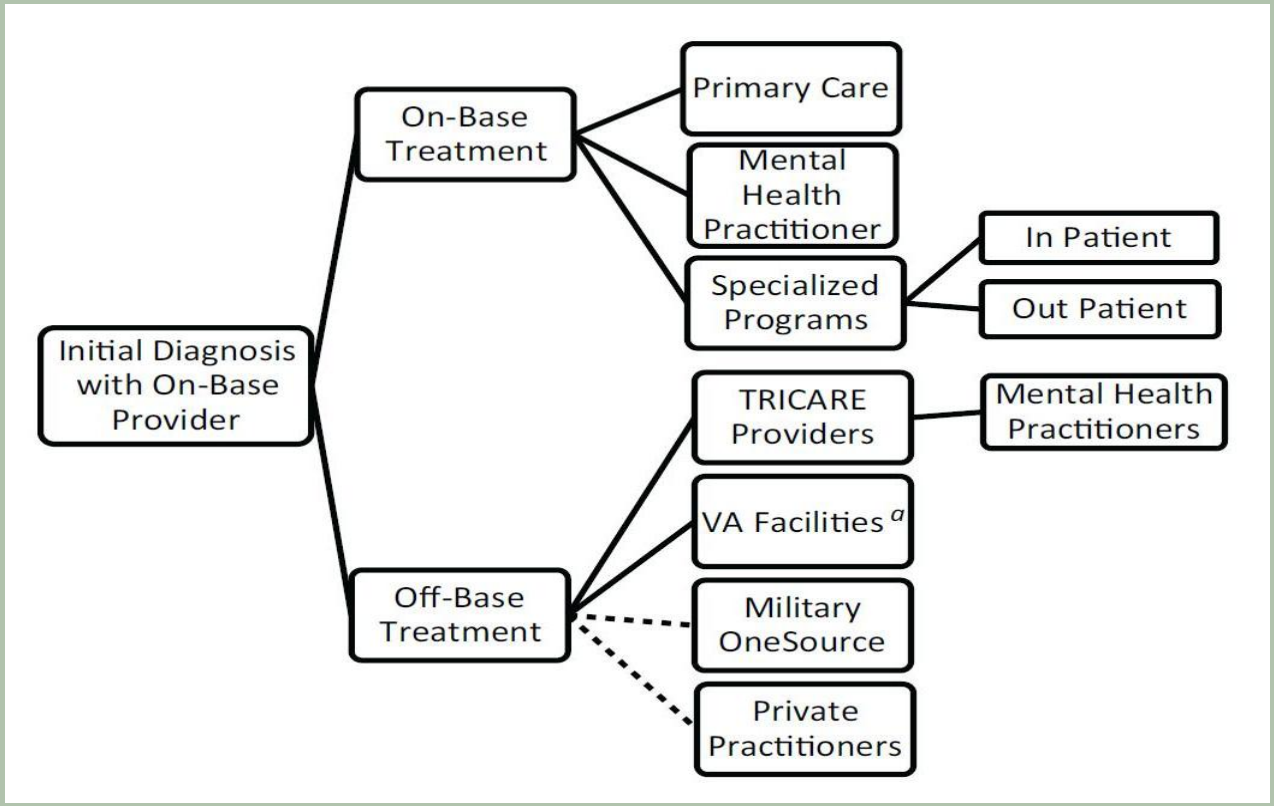
- Couple therapy
- Family therapy
- Complementary and alternative medicine
  - Numerous approaches are used by service members and veterans but evidence base is lacking for their use for PTSD
  - Both the VA and DoD offer a variety of these therapies
  - Among the most widely used and/or studied therapies are:
    - Yoga
    - Contemplative approaches (e.g., transcendental meditation)
    - Acupuncture
  - Other CAM therapies include: emotional freedom technique and thought field therapy; neurofeedback; Qigong and T'ai chi; animal-assisted therapy; herbal and dietary supplments; art therapy
- Other somatic treatments have been proposed
  - Electroconvulsive therapy, rTMS, hyperbaric oxygen, vagal nerve stimulation

Rehabilitation

- Co-occurring conditions common with PTSD
  - Psychiatric (e.g., substance abuse, depression)
  - Medical (e.g., TBI, chronic pain, spinal cord injury, amputation)
  - Psychosocial (relationship problems, intimate partner violence, aggression, unemployment, high-risk behaviors, homeless, incarceration, parenting)
- Co-occurring conditions complicate real world prevention, screening, assessment, treatment, and rehabilitation efforts
- Collaborative stepped-care approaches for PTSD and comborbid conditions are needed
- Many critical issues understudied including
  - Concurrent treatment versus sequential care
  - No comprehensive guidelines for comorbid treatment
  - Little outcome data on comorbid PTSD care in DoD and VA
- Suicide attempts and ideation are important issues for PTSD care
  - There is evidence that effective treatment for PTSD reduces them

PTSD Programs and Services in DoD

- More than 100 PTSD programs across the services
- Many venues, services, and settings



Programs and Services for PTSD in VA

- Every VA medical facility provides treatment services for PTSD including pharmacology, screening and assessment, group and individual therapy, and psychotherapy
- Every medical facility must offer evidence-based treatment of CPT and/or PE, but VA also uses CAM treatments in specialized treatment programs; exploring use of telemental health services
- In FY2010, 438,091 veterans received care for PTSD in the VA
- Most common outpatient treatment venue for PTSD is in general mental health outpatient clinics followed by specialized outpatient PTSD programs; other nonmental health venues; 41 specialized intensive PTSD programs
- Vet Centers also offer counseling

Access to Care

- Barriers to high-quality PTSD treatment exist at different levels
  - Individual (e.g., concerns about employment, finances, logistics; lack of information on available resources; personal attitudes and beliefs)
  - Provider (e.g., lack of training, lack of time, treatment location issues)
  - Institutional (e.g., organization requirements for screening and treatment, competing demands)
- Active-duty service members may have difficulty keeping regularly scheduled appointments or may not be able to complete a full treatment regimen; restrictions on psychiatric medications by service, location, and job
- Embedding mental health treatment in primary care settings might help to overcome some barriers, such as stigma of presenting to specialty mental health setting

Access to Care

- DoD and VA have made progress in early screening of service members and veterans, respectively, for PTSD; it is critical that this be followed with timely access to care that integrates evidence-based treatments into a stepped-care, multimodal treatment plan
- Studies indicate that less than half of veterans who need PTSD care seek such care
- Telemental health approaches could increase access for rural and other underserved populations and decrease travel time, costs, and time away from work or family
  - Videoconferencing with provider for therapy
  - Internet-based interventions
- Need for more empirical data on barriers to accessing PTSD care for military and veteran populations, current patients, and providers

Barriers to Providing Evidence-Based Care

- Training practitioners for delivery of evidence-based care should be intensive and experiential; pharmacologic training should be similar
- VA tracks PTSD training for mental health providers on evidence-based psychosocial approaches and whether initiatives to improve access to such care are successful
  - Not currently done in DoD
- VA has used qualitative interviews with patients and providers to document barriers and facilitators to PTSD care; could serve as a model for assessing barriers to PTSD care in the DoD
- Audit/feedback loops are necessary to track the provision of evidence based care (e.g., VA is augmenting the computerized medical record to monitor whether veterans are receiving at least 8 treatment sessions in a 14-week period)

Findings

- Most prevention, screening, and treatment services and programs, including early treatment interventions, CAM therapies, and innovative delivery systems lack data on long-term outcomes making it difficult to evaluate efficacy and effectiveness of these programs
- PTSD is highly comorbid with other mental and physical health conditions as well as psychosocial conditions such as relationship problems and unemployment
- Although VA/DoD Guideline for Management of Post-traumatic Stress is among the most comprehensive
  - Adherence by DoD and VA health providers is unknown;
  - Although many providers trained in PE and CPT, use of these therapies in DoD and VA is also largely unknown

Findings

- Data on efficacy and effectiveness of some specialized programs are being collected, but more programs need to be evaluated and results disseminated to reduce redundancy and inefficiency
- Evaluation methods and metrics have not been standardized making comparisons among and within programs at DoD and VA difficult
- Both the DoD and the VA have made considerable efforts to develop “one-stop shops” for mental health services and have been using new technologies to deliver care and services for PTSD; further research on these modalities is critical
- Additional data are necessary on many critical aspects of PTSD care in DoD and VA

Recommendations

- **Analyze**
  - To study the efficacy of treatment and to move toward measurement-based PTSD care in the DoD and the VA, assessment data should be collected before, during, and after treatment and should be entered into patients' medical records. This information should be made accessible to researchers with appropriate safeguards to ensure patient confidentiality.
  - The DoD and the VA should institute programs of research to evaluate the efficacy, effectiveness, and implementation of all their PTSD screening, treatment, and rehabilitation services, including research in different populations of active-duty personnel and veterans; the effectiveness of DoD prevention services should also be assessed. The DoD and the VA should coordinate, evaluate, and review these efforts continually and routinely and should disseminate the findings widely.
- **Implement**
  - PTSD screening should be conducted at least once a year when primary care providers see service members at DoD military treatment facilities or at any TRICARE provider locations, as is currently done when veterans are seen in the VA.

Recommendations

- **Innovate**
  - Specialized intensive PTSD programs and other approaches for the delivery of PTSD care, including combining different treatment approaches and such emerging treatments as CAM, need to be rigorously evaluated throughout DoD facilities (including TRICARE providers) and VA facilities for efficacy, effectiveness, and cost. More rigorous assessment of symptom improvements (e.g., such outcome metrics as follow-up rates) and of functional improvements (e.g., improvements in physical comorbidities, memory, and return to duty) is needed. The evaluations of these programs should be made publicly available.
  - The DoD and the VA should support neurobiology research that might help translate current knowledge of the neurobiology of PTSD to screening, diagnosis, and treatment approaches and might increase understanding of the biologic basis of evidence-based therapies.
- **Overcome**
  - The DoD and the VA should support research that investigates emerging technologic approaches (mobile, telemedicine, Internet-based, and virtual reality) that may help to overcome barriers to awareness, accessibility, availability, acceptability, and adherence to evidence-based treatments and disseminate the outcomes to a wide audience.
- **Integrate**
  - Research to create an evidence base to guide the integration of treatment for comorbidities with treatment for PTSD should be sponsored by the DoD and the VA. PTSD treatment trials should incorporate assessment of comorbid conditions and of the value of concurrent and sequential care. Effective treatments should be included in updates of the *VA/DoD Clinical Practice Guideline for the Management of Post-Traumatic Stress*.

Phase 2

- Current and future cost projections
- New neurobiologic findings
- Complementary and alternative treatments
- Base visits to provide more information on specialized services and programs
- The availability of and need for programs targeted specifically to racial, gender, and ethnic populations
- Updated numbers of service members and veterans diagnosed with PTSD
- Successful treatment programs in DoD and VA