The Economic Burden of Post-traumatic Stress Disorder in the United States from a Societal Perspective

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Background
• Post-traumatic stress disorder (PTSD) is a psychiatric condition that may develop after experiencing or witnessing a traumatic event.
• The prevalence of PTSD in the US civilian population for men and women is 22% and 6%, respectively, and 6.7% and 14.5%, respectively, for the military population.
• PTSD is associated with a range of psychosocial and functional problems, that can be chronic and debilitating for patients, affecting many aspects of their lives.
• Comprehensive studies of the burden of civilian and military PTSD are critically lacking, which helps in public policy and interventions aimed at mitigating the wide-ranging consequences of this disorder.

Objective
To estimate the economic burden of PTSD from a societal perspective in a representative US adult population with PTSD.

Study design
• Budet of disease study using a prevalence-based and human capital approach (including full compensation rates), derived from a targeted literature search and retrospective claims data stratified by civilian and military service.

Methods
Civilian and military PTSD population
• Estimated using the 2012–2013 National Epidemiologic Survey on Alcohol and Related Conditions-III prevalence study
• PTSD was assessed using the Alcohol Use Disorder and Associated Disabilities Interview Schedule-D version 5 (DSM-V), which is a structuring, in-person interview by a non-clinician.

Excess costs
- Excess healthcare and non-healthcare costs were driven by disability, followed by substance use, and homelessness.
- Excess indirect costs were driven by unemployment, caregiving, and productivity loss.
- Excess direct healthcare costs were largely driven by medical service costs.
- Excess direct non-healthcare costs were largely driven by disability, followed by substance use, and homelessness.
- Excess indirect costs were largely driven by unemployment, caregiving, and productivity loss.

Figure 1. Excess costs of PTSD in 2018 USD by component

Costs by population
- The civilian population accounted for 81.6% ($189.5 B) of the excess burden of PTSD, compared to 17.6% ($42.7 B) for the military population.

Figure 4. Economic burden of PTSD by civilian status and gender

Conclusion
• The economic burden of PTSD was found to be substantial and goes beyond direct healthcare costs (which accounted for 33% of the overall burden), exceeding costs for non-serious psychiatric mental illnesses (non-SPM), such as anxiety and depression.
• The civilian population, specifically women, have been under-recognized in the literature as a disproportional group of individuals suffering from PTSD.
• The substantial economic burden of PTSD highlights the need for additional awareness to develop treatments, programs, and interventions to alleviate the far-reaching consequences associated with PTSD.

Figure 3. Total excess costs of PTSD in 2018 USD by component

Figure 2. Economic burden of PTSD by component

References

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Abstract:

Background: Post-traumatic Stress Disorder (PTSD) is a psychiatric condition with a prevalence of 11.7% for female veterans, 6.0% for female civilians, 6.7% for male veterans, and 2.6% for male civilians. Symptoms include intrusive thoughts/feelings, recurrent nightmares related to the event, avoidance of stimuli related to the event, and significant impairment in functioning.

Objective: To provide a comprehensive evaluation of the economic burden associated with PTSD in both civilian and military adult populations.

Methods: Excess direct healthcare costs (i.e., medical, pharmacy) of civilians with PTSD were estimated using MarketScan claims databases. Excess direct healthcare costs of the military population with PTSD and excess direct non-healthcare costs (i.e., research/training, substance use, psychotherapy, homelessness, disability) and excess indirect costs (i.e., unemployment, productivity loss, caregiving, premature mortality) of civilian and military populations with PTSD were estimated using a prevalence based and human capital approach with a targeted literature search of academic and official government publications.

Results: Using prevalence estimates from the literature, the total number of adults with PTSD was estimated at 11.8M (4.7%), the civilian population with PTSD was estimated at 10.2M (86%; 7.6M females; 2.6M males), and the military population with PTSD was estimated at 1.7M (14%; 0.3M females; 1.4M males). The total excess burden of PTSD was estimated at $232.2B ($19,630 per individual). The civilian population with PTSD incurred 82% of the excess burden of PTSD (civilian: $189.5B; military: $42.7B). Females accounted for 74% ($140.9B) and 17% ($7.5B) of the excess burden for the civilian and military populations with PTSD, respectively. The burden of PTSD in the civilian population was driven by indirect costs ($106.5B; 56%), followed by direct healthcare costs ($66.0B; 35%), and direct non-healthcare costs ($16.9B; 9%), whereas the burden of PTSD in the military population was driven by direct non-healthcare costs ($18.8B; 44%), followed by indirect costs ($13.8B; 32%), and direct healthcare costs ($10.1B; 24%). In both the civilian and military populations, the excess indirect costs were largely unemployment (civilian: $42.7B; military: $3.5B), and direct non-healthcare costs were mainly disability (civilian: $14.5B; military: $17.8B).

Conclusions: The prevalence and economic burden of PTSD is substantial, especially among the female civilian population. The burden goes beyond direct healthcare costs, including substantial indirect and direct non-healthcare costs.

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