

Entitlement Eligibility Guideline

Posttraumatic Stress Disorder

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ICD-11 codes: 6B40, 6B41

VAC medical code: 00620 Posttraumatic stress disorder

Definition

Posttraumatic stress disorder (PTSD) is a condition in the *Diagnostic and Statistical Manual of Mental Disorders Fifth Edition-Text Revision (DSM-5-TR)* category of trauma and stressor-related disorders. PTSD is characterized by the onset of psychiatric symptoms after exposure to one or more traumatic events.

The characteristic symptoms of PTSD develop in four domains:

- intrusion
- avoidance
- alterations in cognition and mood
- alterations in arousal and reactivity.

Diagnostic standard

A diagnosis from a qualified physician (family physician or psychiatrist), nurse practitioner, or a registered/licensed psychologist is required.

The diagnosis is made clinically and supporting documentation should be as comprehensive as possible.

When signs and symptoms are suggestive of PTSD, and a diagnosis of PTSD is not confirmed, PTSD (tentative) may be considered in consultation with a disability consultant.

Clinical features

A number of considerations contribute to the development of PTSD, including biological, psychological and environmental influences. None of the considerations

for PTSD alone are sufficient for the development of PTSD, and they operate at various levels to contribute to its onset and progression.

Biological considerations: Magnetic resonance imaging (MRI) scans of individuals with PTSD have shown altered activity in particular regions of the brain such as the amygdala, hippocampus, and anterior cingulate cortex.

Research shows changes in brain chemistry and metabolism of certain neurotransmitters may impact the development of PTSD. Stress hormones, including cortisol and adrenaline, are released in response to stress. Individuals with PTSD may have dysregulated stress hormone responses, leading to heightened physiological arousal and hyperreactivity. For example, there may be increased norepinephrine levels, decreased glucocorticoid levels, and changes in left hemispheric function.

Genetics may also contribute to an individual's susceptibility to developing PTSD through an interaction with environmental factors.

Psychological considerations: Individual differences may influence the response to trauma, as well as treatment outcomes. Persistent psychological factors associated with negative emotional responses, such as depressed mood and anxiousness, are risk factors for the development of PTSD. A history of prior mental health conditions may increase the risk of development of PTSD.

Environmental considerations: Previous exposure to trauma, and the severity of that trauma, appears to increase the risk of developing PTSD in response to subsequent traumatic events. How this sensitization occurs is not well understood. Childhood adversity, family dysfunction, ethnic discrimination, racism, and social support prior to event exposure influence the risk of PTSD.

PTSD is more common among females. Increased risk for females appears to be attributable to a greater likelihood of exposure to childhood sexual abuse, sexual trauma, and other forms of violence. Females diagnosed with PTSD are more likely to experience a longer duration of impairment with higher levels of negative emotions and physical symptoms. Sexual minority Veterans, including transgender Veterans, have been shown to be at increased risk for PTSD compared to their heterosexual, cisgender peers. Sexual minority encompasses anyone whose sexual orientation differs from heterosexuality.

Criteria set

The PTSD criteria set for individuals older than age six years is derived from the *DSM-5-TR*.

This EEG provides the *DSM-5-TR* diagnostic criteria; however, the [*International Classification of Diseases 11th Revision \(ICD-11\)*](#) is also considered an acceptable diagnostic standard.

Criterion A

Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways:

1. directly experiencing the traumatic event(s)
2. witnessing, in person, the event(s) as it occurred to others
3. learning traumatic event(s) occurred to a close family member or close friend.
In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental.
4. experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (e.g., first responders collecting human remains; police officers repeatedly exposed to details of child abuse).

Note: Criterion A4 does not apply to exposure through electronic media, television, movies, or pictures, unless this exposure is work-related.

Criterion B

Presence of one (or more) of the following intrusion symptoms associated with the traumatic event(s), beginning after the traumatic event(s) occurred:

1. recurrent, involuntary, and intrusive distressing memories of the traumatic event(s)
2. recurrent distressing dreams in which the content and/or affect of the dream are related to the traumatic event(s)
3. dissociative reactions, (e.g., flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring. (Such reactions may occur on a continuum, with the most extreme expression being a complete loss of awareness of present surroundings.)
4. intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event(s)

5. marked physiological reactions to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).

Criterion C

Persistent avoidance of stimuli associated with the traumatic event(s), beginning after the traumatic event(s) occurred, as evidenced by one or both of the following:

1. avoidance of or efforts to avoid distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s)
2. avoidance of or efforts to avoid external reminders (people, places, conversations, activities, objects, situations) that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).

Criterion D

Negative alterations in cognition and mood associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:

1. inability to remember any important aspect of the traumatic event(s) (typically due to dissociative amnesia and not to other factors such as head injury, alcohol or drugs)
2. persistent and exaggerated negative beliefs or expectations about oneself, others, or the world (e.g., "I am bad," "No one can be trusted," "The world is completely dangerous," "My whole nervous system is permanently ruined")
3. persistent, distorted cognitions about the cause or consequences of the traumatic event(s) that lead the individual to blame himself/herself or others
4. persistent negative emotional state (e.g., fear, horror, anger, guilt, or shame)
5. markedly diminished interest or participation in significant activities
6. feelings of detachment or estrangement from others
7. persistent inability to experience positive emotions (e.g., inability to experience happiness, satisfaction, or loving feelings).

Criterion E

Marked alterations in arousal and reactivity associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:

1. irritable behaviour and angry outbursts (with little or no provocation) typically expressed as verbal or physical aggression towards people or objects

2. reckless or self-destructive behavior
3. hypervigilance
4. exaggerated startle response
5. problems with concentration
6. sleep disturbance (e.g., difficulty falling asleep or staying asleep or restless sleep).

Criterion F

Duration of the disturbance (Criteria B, C, D, and E) is more than one month.

Criterion G

The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Criterion H

The disturbance is not attributable to the physiologic effects of a substance (e.g., medication, alcohol) or another medical condition.

If indicated, specify whether:

With dissociative symptoms: The individual's symptoms meet the criteria for posttraumatic stress disorder, and in addition, in response to the stressor, the individual experiences persistent or recurrent symptoms of either of the following:

1. Depersonalization: Persistent or recurrent experiences of feeling detached from, and as if one were an outside observer of, one's mental processes or body (e.g., feeling as though one were in a dream; feeling a sense of unreality of self or body or of time moving slowly).
2. Derealization: Persistent or recurrent experiences of unreality of surroundings (e.g., the world around the individual is experienced as unreal, dreamlike, distant, or distorted).

Note: To use this subtype, the dissociative symptoms must not be attributable to the physiological effects of a substance (e.g., blackouts, behaviour during alcohol intoxication) or another medical condition (e.g., complex partial seizures).

Specify if:

With delayed expression: This occurs when the full diagnostic criteria are not met until at least six months after the event, with the recognition some symptoms typically appear immediately, and the delay is in meeting full criteria.

Entitlement considerations

Section A: Causes and/or aggravation

Causal or aggravating factors versus predisposing factors

Causal or aggravating factors directly result in the onset or aggravation of the claimed psychiatric condition.

Predisposing factors make an individual more susceptible to developing the claimed condition. They are experiences or exposures which affect the individual's ability to cope with stress. For example, severe childhood abuse may be a predisposing factor in the onset of a significant psychiatric condition later in life. These factors do not cause a claimed condition. Partial entitlement should not be considered for predisposing factors.

Physical/constitutional symptoms are prevalent in people living with psychiatric diagnoses and are often associated with psychological distress. Physical and mental health symptoms frequently co-occur. Physical symptoms associated with psychiatric conditions are included in entitlement/assessment. However, once a symptom has developed into a separate and distinct diagnosis, the new diagnosis becomes a separate entitlement consideration.

For VAC entitlement purposes, the following [factors](#) are accepted to cause or aggravate the conditions included in the [Definition section](#) of this EEG, and may be considered along with the evidence to assist in establishing a relationship to service. The factors have been determined based on a review of up-to-date scientific and medical literature, as well as evidence-based medical best practices. Factors other than those listed may be considered, however consultation with a disability consultant or medical advisor is recommended.

The timelines cited below are for guidance purposes. Each case should be adjudicated on the evidence provided and its own merits.

Factors

1. Directly experiencing a **traumatic event(s)** before the clinical onset or aggravation of PTSD.

Traumatic events include, but are not limited to:

- exposure to military combat
- threatened or actual physical assault
- threatened or actual sexual trauma
- being kidnapped
- being taken hostage
- being in a terrorist attack
- being tortured
- incarceration as a prisoner of war
- being in a natural or human-made disaster
- being in a severe motor vehicle accident
- killing or injuring a person
- experiencing a sudden, catastrophic medical incident.

Note:

- Moral injury related to service may occur in response to a traumatic event. Moral injury refers to the psychological, emotional, and spiritual distress that arises from actions, or the witnessing of actions, that challenges one's moral and ethical values or beliefs. The resulting distress may contribute to the development of PTSD. Morally injurious events are often associated with situations where individuals feel a profound sense of guilt, shame, or betrayal due to their own actions or the actions of others. These certainly may occur in the context of war, combat, or other high-stakes, morally challenging experiences.
 - Repeated exposure to prejudicial or unjust treatment may be considered a traumatic event.
2. **In-person witnessing** of a traumatic event(s) as it occurred to another person(s) before the clinical onset or aggravation of PTSD.

Witnessed traumatic events include, but are not limited to:

- threatened or serious injury to another person
- an unnatural death
- physical or sexual abuse of another person
- a medical catastrophe in a close family member or close friend.

3. Learning a **close family member or close friend experienced a violent or accidental traumatic event(s)** within the two years before the clinical onset or aggravation of PTSD.

Traumatic events include, but are not limited to:

- physical assault
- sexual trauma
- serious accident
- serious injury.

Note: The relationship between individuals in a leadership role and subordinates should be considered akin to close family or friend when reviewing a traumatic event.

4. Experiencing **repeated or extreme exposure** to aversive details of a traumatic event(s) before the clinical onset or aggravation of PTSD.

Exposures include, but are not limited to:

- viewing and/or collecting human remains
- viewing and/or participating in the clearance of critically injured casualties
- repeated exposure to the details of abuse and/or atrocities inflicted on another person(s)
- dispatch operators exposed to violent or accidental traumatic event(s).

Note: If the exposure under factor four is to electronic media, television, movies and pictures, the exposure must be work related.

5. Living or working in a **hostile or life-threatening environment** for a period of at least four weeks before the clinical onset or aggravation of PTSD.

Situations or settings which have a pervasive threat to life or body include, but are not limited to:

- being under threat of artillery, missile, rocket, mine or bomb attack
- being under threat of nuclear, biologic or chemical agent attack
- being involved in combat or going on combat patrols.

6. Experiencing the **death of a close family member or close friend** within the two years before the clinical onset or aggravation of PTSD.

Note: The relationship between individuals in a leadership role and subordinates should be considered akin to close family or friend.

7. Inability to obtain **appropriate clinical management** of PTSD.

Section B: Medical conditions which are to be included in entitlement/assessment

Section B provides a list of diagnosed medical conditions/categories which are considered, for VAC purposes, to be included in the entitlement and assessment of PTSD.

- All other trauma-and stressor-related disorders
- [Adjustment disorder](#)
- [Anxiety disorders](#)
- [Bipolar and related disorders](#)
- [Depressive disorders](#)
- Dissociative disorders
- [Feeding and eating disorders](#)
- Neurodevelopmental disorders
 - Attention-deficit/hyperactivity disorder
- Obsessive-compulsive and related disorders
- Pain disorder (*Diagnostic and Statistical Manual of Mental Disorders Fourth Edition-Text Revision [DSM-4-TR]* Axis I Diagnosis)
- Personality disorders
- [Schizophrenia spectrum and other psychotic disorders](#)
- Sleep-wake disorders
 - Insomnia disorder
 - Hypersomnolence disorder
- Somatic symptom disorder with predominant pain (previously pain disorder in the *DSM-4-TR*)
- [Substance use disorders](#)

Note:

- If specific conditions are listed for a category, only these conditions are included in the entitlement and assessment of PTSD. Otherwise, all conditions within the category are included in the entitlement and assessment of PTSD.
- Separate entitlement is required for a *DSM-5-TR* condition not included in Section B of this EEG.
- Somatic symptom and related disorders, such as functional neurological symptom disorder (conversion disorder), somatic symptom disorder, illness

anxiety disorder, and bodily distress disorder (*ICD-11* diagnosis) are entitled separately and assessed on individual merits.

Section C: Common medical conditions which may result, in whole or in part, from posttraumatic stress disorder and/or its treatment

Section C is a list of conditions which can be caused or aggravated by PTSD and/or its treatment. Conditions listed in Section C are not included in the entitlement and assessment of PTSD. A consequential entitlement decision may be considered where the individual merits and the medical evidence of the case support a consequential relationship.

Conditions other than those listed in Section C may be considered; consultation with a disability consultant or medical advisor is recommended.

- [Bruxism](#)
- Irritable bowel syndrome
- [Ischemic heart disease](#)
- [Obstructive sleep apnea](#)
- Periodic limb movement disorder
- Restless leg syndrome
- [Salivary gland hypofunction disorder \(xerostomia\)](#)
- [Sexual dysfunction](#)

If it is claimed a medication required to treat PTSD resulted in whole, or in part, in the clinical onset or aggravation of a medical condition, the following must be established:

- The medication was prescribed to treat PTSD.
- The individual was receiving the medication at the time of the clinical onset or aggravation of the condition being claimed to the medication.
- The current medical literature supports the medication can result in the clinical onset or aggravation of the condition being claimed to the medication.
- The medication use is long-term, ongoing, and cannot reasonably be replaced with another medication or the medication is known to have enduring effects after discontinuation.

Note: Individual medications may belong to a class of medications. The effects of a specific medication may vary from the grouping. The effects of the specific medication should be considered.

Links

Related VAC guidance and policy:

- [Adjustment Disorder - Entitlement Eligibility Guidelines](#)
- [Anxiety Disorders – Entitlement Eligibility Guidelines](#)
- [Bipolar and Related Disorders - Entitlement Eligibility Guidelines](#)
- [Bruxism – Entitlement Eligibility Guidelines](#)
- [Depressive Disorders - Entitlement Eligibility Guidelines](#)
- [Feeding and Eating Disorders - Entitlement Eligibility Guidelines](#)
- [Ischemic Heart Disease - Entitlement Eligibility Guidelines](#)
- [Salivary Gland Hypofunction Disorder \(Xerostomia\) - Entitlement Eligibility Guidelines](#)
- [Schizophrenia - Entitlement Eligibility Guidelines](#)
- [Sexual Dysfunction - Entitlement Eligibility Guidelines](#)
- [Sleep-Related Breathing Disorders – Entitlement Eligibility Guidelines](#)
- [Substance Use Disorders - Entitlement Eligibility Guidelines](#)
- [Pain and Suffering Compensation – Policies](#)
- [Royal Canadian Mounted Police Disability Pension Claims – Policies](#)
- [Dual Entitlement – Disability Benefits – Policies](#)
- [Establishing the Existence of a Disability – Policies](#)
- [Disability Benefits in Respect of Peacetime Military Service – The Compensation Principle – Policies](#)
- [Disability Benefits in Respect of Wartime and Special Duty Service – The Insurance Principle – Policies](#)
- [Disability Resulting from a Non-Service Related Injury or Disease – Policies](#)
- [Consequential Disability – Policies](#)
- [Benefit of Doubt – Policies](#)

References as of 22 January 2025

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.).

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5* (5th ed.).

American Psychiatric Association (Ed.). (2022). *Diagnostic and statistical manual of mental disorders: DSM-5-TR* (5th ed., text rev.).

Australian Government. (2008). *Statement of Principles concerning posttraumatic stress disorder (Balance of Probabilities) (No. 05 of 2008)*. [SOPs - Repatriation Medical Authority](#)

Australian Government. (2008). *Statement of Principles concerning posttraumatic stress disorder (Reasonable Hypothesis) (No. 06 of 2008)*. [SOPs - Repatriation Medical Authority](#)

Australian Government. (2022). *Statement of Principles concerning posttraumatic stress disorder (Balance of Probabilities) (No. 98 of 2022)*. [SOPs - Repatriation Medical Authority](#)

Australian Government. (2022). *Statement of Principles concerning posttraumatic stress disorder (Reasonable Hypothesis) (No. 97 of 2022)*. [SOPs - Repatriation Medical Authority](#)

Black, D. W., Carney, C. P., Peloso, P. M., Woolson, R. F., Schwartz, D. A., Voelker, M. D., Barrett, D. H., & Doebbeling, B. N. (2004). Gulf War Veterans With Anxiety: Prevalence, Comorbidity, and Risk Factors. *Epidemiology*, 15(2), 135–142.
<https://doi.org/10.1097/01.EDE.0000103188.18059.21>

Blosnich, J., Foyne, M. M., & Shipherd, J. C. (2013). Health Disparities Among Sexual Minority Women Veterans. *Journal of Women's Health*, 22(7), 631–636.
<https://doi.org/10.1089/jwh.2012.4214>

Blosnich, J. R., Gordon, A. J., & Fine, M. J. (2015). Associations of sexual and gender minority status with health indicators, health risk factors, and social stressors in a national sample of young adults with military experience. *Annals of*

- Epidemiology*, 25(9), 661–667. <https://doi.org/10.1016/j.annepidem.2015.06.001>
- Bremner, J. D., Randall, P., Scott, T. M., Bronen, R. A., Seibyl, J. P., Southwick, S. M., Delaney, R. C., McCarthy, G., Charney, D. S., & Innis, R. B. (1995). MRI-based measurement of hippocampal volume in patients with combat-related posttraumatic stress disorder. *The American Journal of Psychiatry*, 152(7), 973. <https://doi.org/10.1176/ajp.152.7.973>
- Breslau, N., Chilcoat, H. D., Kessler, R. C., & Davis, G. C. (1999). Previous exposure to trauma and PTSD effects of subsequent trauma: results from the Detroit Area Survey of Trauma. *American Journal of Psychiatry*, 156(6), 902-907. <https://doi.org/10.1176/ajp.156.6.902>
- Carbone, J. T., Holzer, K. J., Vaughn, M. G., & DeLisi, M. (2020). Homicidal Ideation and Forensic Psychopathology: Evidence From the 2016 Nationwide Emergency Department Sample (NEDS). *Journal of Forensic Sciences*, 65(1), 154–159. <https://doi.org/10.1111/1556-4029.14156>
- Chan, P. K. (2016). Mental health and sexual minorities in the Ohio Army National Guard [Case Western Reserve University School of Graduate Studies]. http://rave.ohiolink.edu/etdc/view?acc_num=cas1458924994
- Chang, C. J., Fischer, I. C., Depp, C. A., Norman, S. B., Livingston, N. A., & Pietrzak, R. H. (2023). A disproportionate burden: Prevalence of trauma and mental health difficulties among sexual minority versus heterosexual U.S. military veterans. *Journal of Psychiatric Research*, 161, 477–482. <https://doi.org/10.1016/j.jpsychires.2023.03.042>

- Chin, S., Carlucci, S., McCuaig Edge, H. J., & Lu, D. (2022). Health differences by entry stream among Canadian Armed Forces officer cadets. *Journal of Military, Veteran and Family Health*, 8(3), 45–57. <https://doi.org/10.3138/jmvfh-2021-0124>
- Cochran, B. N., Balsam, K., Flentje, A., Malte, C. A., & Simpson, T. (2013). Mental Health Characteristics of Sexual Minority Veterans. *Journal of Homosexuality*, 60(2–3), 419–435. <https://doi.org/10.1080/00918369.2013.744932>
- Duncan, L. E., Cooper, B. N., & Shen, H. (2018). Robust Findings From 25 Years of PTSD Genetics Research. *Current Psychiatry Reports*, 20(12), 115. <https://doi.org/10.1007/s11920-018-0980-1>
- Finnegan, A., & Randles, R. (2023). Prevalence of common mental health disorders in military veterans: Using primary healthcare data. *BMJ Military Health*, 169(6), 523–528. <https://doi.org/10.1136/bmjmilitary-2021-002045>
- Gelernter, J., Sun, N., Polimanti, R., Pietrzak, R., Levey, D. F., Bryois, J., Lu, Q., Hu, Y., Li, B., Radhakrishnan, K., Aslan, M., Cheung, K. H., Li, Y., Rajeevan, N., Sayward, F., Harrington, K., Chen, Q., Cho, K., Pyarajan, S., ... & Department of Veterans Affairs Cooperative Studies Program (#575B) and Million Veteran Program (2019). Genome-wide association study of post-traumatic stress disorder reexperiencing symptoms in >165,000 US veterans. *Nature Neuroscience*, 22(9), 1394–1401. <https://doi.org/10.1038/s41593-019-0447-7>
- Geraciotti, T. D., Jr, Baker, D. G., Ekhtator, N. N., West, S. A., Hill, K. K., Bruce, A. B., Schmidt, D., Rounds-Kugler, B., Yehuda, R., Keck, P. E., Jr, & Kasckow, J. W.

- (2001). CSF norepinephrine concentrations in posttraumatic stress disorder. *American Journal of Psychiatry*, 158(8), 1227-1230.
<https://doi.org/10.1176/appi.ajp.158.8.1227>
- Gorman, K. R., Kearns, J. C., Pantalone, D. W., Bovin, M. J., Keane, T. M., & Marx, B. P. (2022). The impact of deployment-related stressors on the development of PTSD and depression among sexual minority and heterosexual female veterans. *Psychological Trauma: Theory, Research, Practice, and Policy*, 14(5), 747–750. <https://doi.org/10.1037/tra0001102>
- Gauvin, D. E., Wolfson, C., Aiken, A. B., Feinstein, A., Raina, P., & VanTil, L. D. (2022). Correlates of posttraumatic stress disorder among Veterans in the Canadian longitudinal study on aging. *Journal of Military, Veteran and Family Health*, 8(1), 38–55. <https://doi.org/10.3138/jmvfh-2021-0030>
- Gressier, F., Calati, R., & Serretti, A. (2016). 5-HTTLPR and gender differences in affective disorders: A systematic review. *Journal of Affective Disorders*, 190, 193–207. <https://doi.org/10.1016/j.jad.2015.09.027>
- Harper, K. L., Blossnich, J. R., Livingston, N., Vogt, D., Bernhard, P. A., Hoffmire, C. A., Maguen, S., & Schneiderman, A. (2024). Examining differences in mental health and mental health service use among lesbian, gay, bisexual, and heterosexual veterans. *Psychology of Sexual Orientation and Gender Diversity*. <https://doi.org/10.1037/sgd0000712>
- Holloway, I. W., Green, D., Pickering, C., Wu, E., Tzen, M., Goldbach, J. T., & Castro, C. A. (2021). Mental Health and Health Risk Behaviors of Active Duty Sexual Minority

- and Transgender Service Members in the United States Military. *LGBT Health*, 8(2), 152–161. <https://doi.org/10.1089/lgbt.2020.0031>
- Ikin, J. F., Sim, M. R., Creamer, M. C., Forbes, A. B., McKenzie, D. P., Kelsall, H. L., Glass, D. C., McFarlane, A. C., Abramson, M. J., Ittak, P., Dwyer, T., Blizzard, L., Delaney, K. R., Horsley, K. W. A., Harrex, W. K., & Schwarz, H. (2004). War-related psychological stressors and risk of psychological disorders in Australian veterans of the 1991 Gulf War. *British Journal of Psychiatry*, 185(2), 116–126. <https://doi.org/10.1192/bjp.185.2.116>
- Ikin, J. F., Sim, M. R., McKenzie, D. P., Horsley, K. W. A., Wilson, E. J., Moore, M. R., Jelfs, P., Harrex, W. K., & Henderson, S. (2007). Anxiety, post-traumatic stress disorder and depression in Korean War veterans 50 years after the war. *British Journal of Psychiatry*, 190(6), 475–483. <https://doi.org/10.1192/bjp.bp.106.025684>
- Karl, A., Schaefer, M., Malta, L. S., Dörfel, D., Rohleder, N., & Werner, A. (2006). A meta-analysis of structural brain abnormalities in PTSD. *Neuroscience & Biobehavioral Reviews*, 30(7), 1004–1031. <https://doi.org/10.1016/j.neubiorev.2006.03.004>
- Kauth, M. R., & Shipherd, J. C. (2016). Transforming a System: Improving Patient-Centered Care for Sexual and Gender Minority Veterans. *LGBT Health*, 3(3), 177–179. <https://doi.org/10.1089/lgbt.2016.0047>
- Kilpatrick, D. G., Koenen, K. C., Ruggiero, K. J., Acierno, R., Galea, S., Resnick, H. S., Roitzsch, J., Boyle, J., & Gelernter, J. (2007). The serotonin transporter genotype

- and social support and moderation of posttraumatic stress disorder and depression in hurricane-exposed adults. *American Journal of Psychiatry*, 164(11), 1693-1699. <https://doi.org/10.1176/appi.ajp.2007.06122007>
- Lazar, S. G. (2014). The Mental Health Needs of Military Service Members and Veterans. *Psychodynamic Psychiatry*, 42(3), 459–478. <https://doi.org/10.1521/pdps.2014.42.3.459>
- Lees, T., Elliott, J. L., Gunning, S., Newton, P. J., Rai, T., & Lal, S. (2019). A systematic review of the current evidence regarding interventions for anxiety, PTSD, sleepiness and fatigue in the law enforcement workplace. *Industrial Health*, 57(6), 655–667. <https://doi.org/10.2486/indhealth.2018-0088>
- Lehavot, K., Beckman, K. L., Chen, J. A., Simpson, T. L., & Williams, E. C. (2019). Race/ethnicity and sexual orientation disparities in mental health, sexism, and social support among women veterans. *Psychology of Sexual Orientation and Gender Diversity*, 6(3), 347–358. <https://doi.org/10.1037/sgd0000333>
- Lehavot, K., & Simpson, T. L. (2014). Trauma, posttraumatic stress disorder, and depression among sexual minority and heterosexual women veterans. *Journal of Counseling Psychology*, 61(3), 392–403. <https://doi.org/10.1037/cou0000019>
- Lynch, K. E., Gatsby, E., Viernes, B., Schliep, K. C., Whitcomb, B. W., Alba, P. R., DuVall, S. L., & Blosnich, J. R. (2020). Evaluation of Suicide Mortality Among Sexual Minority US Veterans From 2000 to 2017. *JAMA Network Open*, 3(12),

- e2031357. <https://doi.org/10.1001/jamanetworkopen.2020.31357>
- Mattocks, K. M., Kauth, M. R., Sandfort, T., Matza, A. R., Sullivan, J. C., & Shipherd, J. C. (2014). Understanding Health-Care Needs of Sexual and Gender Minority Veterans: How Targeted Research and Policy Can Improve Health. *LGBT Health, 1*(1), 50–57. <https://doi.org/10.1089/lgbt.2013.0003>
- McDonald, J. L., Ganulin, M. L., Dretsch, M. N., Taylor, M. R., & Cabrera, O. A. (2020). Assessing the Well-being of Sexual Minority Soldiers at a Military Academic Institution. *Military Medicine, 185*(Suppl 1), 342–347. <https://doi.org/10.1093/milmed/usz198>
- McNamara, K. A., Lucas, C. L., Goldbach, J. T., Kintzle, S., & Castro, C. A. (2019). Mental health of the bisexual Veteran. *Military Psychology, 31*(2), 91–99. <https://doi.org/10.1080/08995605.2018.1541393>
- Oakley, T., King, L., Ketcheson, F., & Richardson, J. D. (2020). Gender differences in clinical presentation among treatment-seeking Veterans and Canadian Armed Forces personnel. *Journal of Military, Veteran and Family Health, 6*(2), 60–67. <https://doi.org/10.3138/jmvfh-2019-0045>
- Olf, M., Langeland, W., Draijer, N., & Gersons, B. P. R. (2007). Gender differences in posttraumatic stress disorder. *Psychological Bulletin, 133*(2), 183–204. <https://doi.org/10.1037/0033-2909.133.2.183>
- Pelts, M. D., & Albright, D. L. (2015). An Exploratory Study of Student Service Members/Veterans' Mental Health Characteristics by Sexual Orientation. *Journal of American College Health, 63*(7), 508–

512. <https://doi.org/10.1080/07448481.2014.947992>

Shipherd, J. C., Lynch, K., Gatsby, E., Hinds, Z., DuVall, S. L., & Livingston, N. A. (2021). Estimating prevalence of PTSD among veterans with minoritized sexual orientations using electronic health record data. *Journal of Consulting and Clinical Psychology, 89*(10), 856–868. <https://doi.org/10.1037/ccp0000691>

Richardson, J. D., Thompson, A., King, L., Ketcheson, F., Shnaider, P., Armour, C., St. Cyr, K., Sareen, J., Elhai, J. D., & Zamorski, M. A. (2019). Comorbidity patterns of psychiatric conditions in Canadian Armed Forces personnel. *The Canadian Journal of Psychiatry, 64*(7), 501–510. <https://doi.org/10.1177/0706743718816057>

Stimpson, N. J., Thomas, H. V., Weightman, A. L., Dunstan, F., & Lewis, G. (2003). Psychiatric disorder in veterans of the Persian Gulf War of 1991: Systematic review. *British Journal of Psychiatry, 182*(5), 391–403. <https://doi.org/10.1192/bjp.182.5.391>

Tian, Y., Liu, H., Guse, L., Wong, T. K., Li, J., Bai, Y., & Jiang, X. (2015). Association of genetic factors and gene–environment interactions with risk of developing posttraumatic stress disorder in a case–control study. *Biological Research for Nursing, 17*(4), 364–372. <https://doi.org/10.1177/1099800415588362>

Thomas, M. M., Harpaz-Rotem, I., Tsai, J., Southwick, S. M., & Pietrzak, R. H. (2017). Mental and Physical Health Conditions in US Combat Veterans: Results From the National Health and Resilience in Veterans Study. *The Primary Care Companion For CNS Disorders, 19*(3). <https://doi.org/10.4088/PCC.17m02118>

- Tolin, D. F., & Foa, E. B. (2008). Sex differences in trauma and posttraumatic stress disorder: A quantitative review of 25 years of research. *Psychological Trauma: Theory, Research, Practice, and Policy*, 5(1), 37–85. <https://doi.org/10.1037/1942-9681.5.1.37>
- Trivedi, R. B., Post, E. P., Sun, H., Pomerantz, A., Saxon, A. J., Piette, J. D., Maynard, C., Arnow, B., Curtis, I., Fihn, S. D., & Nelson, K. (2015). Prevalence, Comorbidity, and Prognosis of Mental Health Among US Veterans. *American Journal of Public Health*, 105(12), 2564–2569. <https://doi.org/10.2105/AJPH.2015.302836>
- van der Kolk, B. A. (2003). Psychobiology of posttraumatic stress disorder. In J. Panksepp (Ed.), *Textbook of biological psychiatry* (pp. 319-344). Wiley-Liss. <https://doi.org/10.1002/0471468975.ch11>
- World Health Organization. (2019). *International and statistical classification of diseases and related health problems* (11th Revision). <https://icd.who.int/>