

TBI & PTSD

Jennifer M. Erickson, DO

Learning Objectives

- List symptoms that overlap between TBI & PTSD
- Compare and contrast when symptoms from PTSD & TBI occur in patients with both disorders
- List two modalities that can be used to treat patients with TBI & PTSD

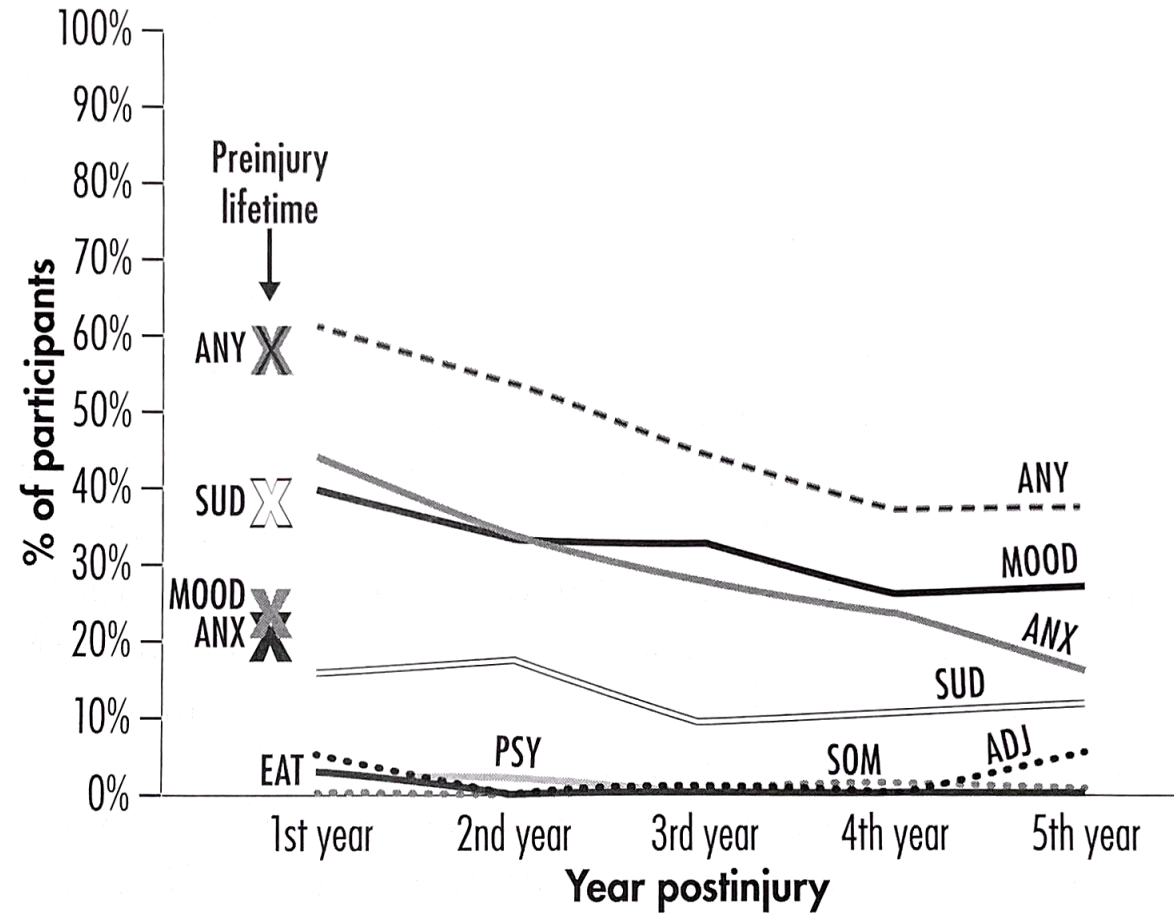


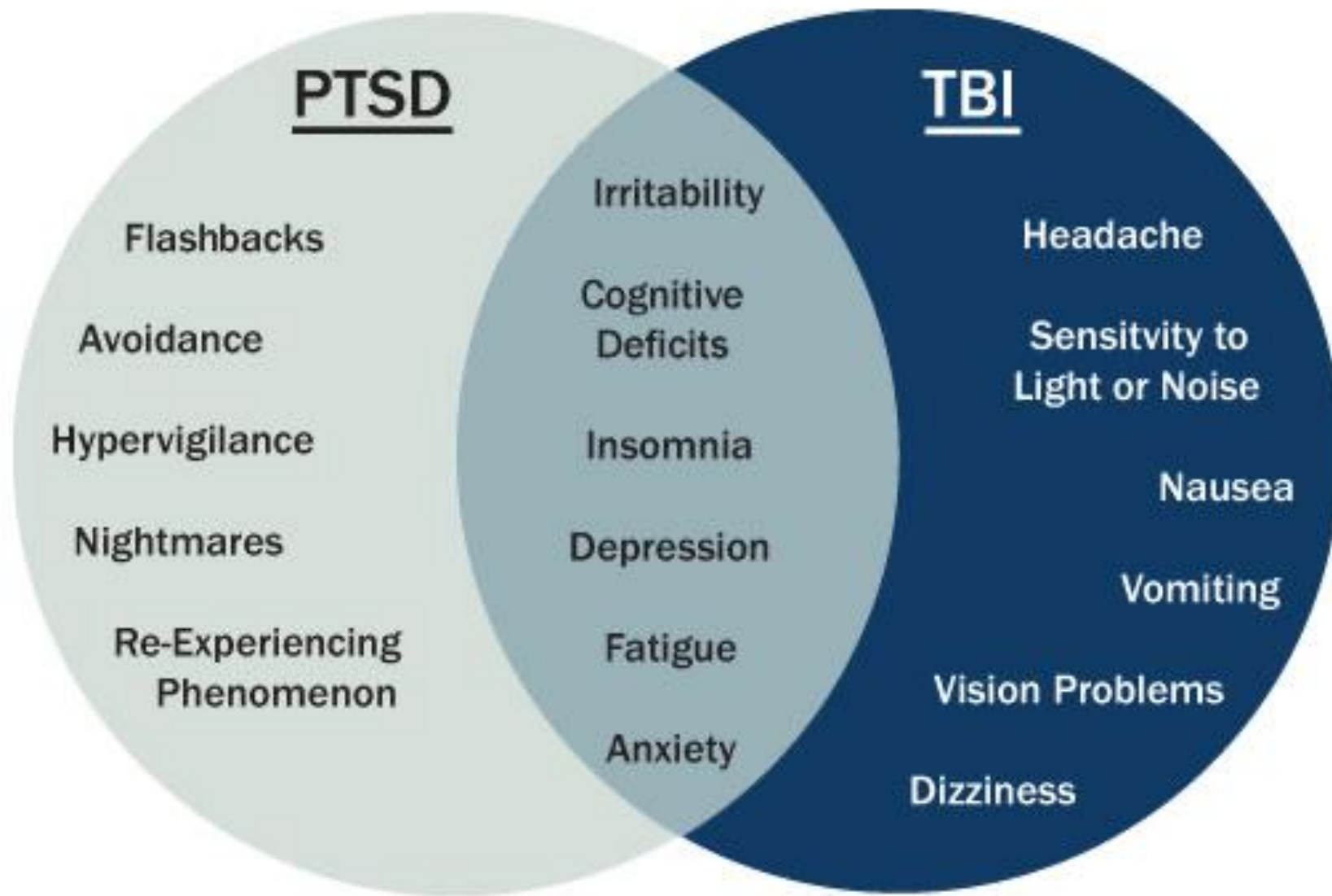
FIGURE 16-1. Disorder frequency—first 5 years postinjury.

Note. ADJ=adjustment disorders; ANX=anxiety disorders; ANY=any disorder; EAT=eating disorders; MOOD=mood disorders; PSY=psychotic disorders; SOM=somatoform disorders; SUD=substance use disorders.

Source. Data from Alway et al. 2016a.

PTSD & TBI - A Controversy

- TBI altered consciousness & PTSD was thought to only exist in the event was 'witnessed/experienced'
- Now implicit (unconscious) memory is recognized as a mediation of PTSD
 - Sights
 - Smells
 - Reconstruction of trauma memory
 - Ongoing trauma - PTSD to the board series of events
- Verfaellie et al 2016 followed veterans
 - MTBI more likely attributed to for symptoms
 - PTSD more likely to cause symptoms



PTSD diagnosis

- 1+ month duration
- Significant stress or dysfunction
 - History of trauma exposure
 - Intrusion of Trauma-related symptoms after event
 - Avoidant behavior
 - Dysfunctional changes in cognition or mood associated with the trauma
 - Increased autonomic arousal

Prevalence & risk factors

- General population - 7.8%
 - MTBI - 10-27%
 - Bryant et al. 2010 1084 people presented to a trauma center. MTBI ~2x as likely to develop PTSD 1 yr later.
 - Severe TBI 3%**
 - Stein et al. 2015 The risk of PTSD increases with TBI severity.
- May result/be associated with brain structures that:
 - Suppress attentional trauma-related stimuli
 - React to threats
 - Distinguish safe vs. unsafe environments

PTSD Risk Factors

Pre-trauma	Trauma-related	Post-trauma
Female gender Widowed or divorced Cognitive deficit Psychiatric symptoms	Combat exposure Assault Memories of Trauma Shorter PTA	Poor social support Limited experiences with life stressors

Evaluation

- Symptom checklist - screening
 - PCL-5
 - CAPS-5
 - SCID-5-CV
- Structural interviews

TBI & PTSD Impact

- Ponsford et al 2012 (civilians)
 - mTBI predicted cognitive, emotional, behavioral, & physical symptoms at three months
 - Premorbid psych, post-morbid anxiety, & PTSD were the predictors after three months
- Mac Donald et al 2015 (military)
 - Early PTSD symptoms are a strong predictor of adverse outcomes at 6-12 months

Treatment

- Guiding Principles
 - Exposure & Avoidance - limited research in PTSD & TBI
 - Supported & controlled experiences
 - Medication & Cognition - even less research in PTSD & TBI
 - Avoiding iatrogenic cognitive impairment

Pharmacotherapy & Psychotherapy

- Medications - Small to Medium Strength of Evidence
 - USED: Sertraline, paroxetine, fluoxetine, venlafaxine
 - Second line: TCAs, Burpopion, Mirtazapine, Trazodone, Prazosin, Stimulants?
 - AVOID: Divalproex, tiagabine, guanfacine, risperidone, benzodiazepines, ketamine, hydrocortisone, D-cycloserine
- Psychotherapy - Medium to Large strength of evidence
 - Introduce early in MTBI & as cognition recovers in STBI
 - Prolonged Exposure Therapy
 - Cognitive Processing Therapy
 - Cognitive Behavioral Therapy +



Questions?

References

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