

Key Points Summary

Jak, A. J., Jurick, S., Hoffman, S., Evangelista, N. D., Deford, N., Keller, A., Merritt, V. C., Sanderson-Cimino, M., Sorg, S., Delano-Wood, L., & Bangen, K. J. (2020). PTSD, but not history of mTBI, is associated with altered myelin in combat-exposed Iraq and Afghanistan veterans. The Clinical Neuropsychologist, 34(6), 1070-1087. doi:10.1080/13854046.2020.1730975

Primary Question this Study Addresses

What are the biological, cognitive, and psychological presentations of combat-exposed Veterans with a history of mild traumatic brain injury (mTBI) and/or posttraumatic stress disorder (PTSD)?

Study Findings That Add to Our Knowledge

There were no significant group differences on the neuropsychological composite scores.

PTSD was associated with higher myelin water fraction across all regions of interest.Positive associations were observed between myelin and PTSD symptoms, but no associations were found between myelin and neurobehavioral symptoms.

No associations were found between myelin in the regions of interest and the cognitive composite scores.

How Study Evidence Might Be Used in Practice

There were no neuropsychological or myelin water fraction differences in combat Veterans with a remote history of mTBI, but there were myelin alterations related to PTSD.

Psychological trauma should be a primary target for intervention in Veterans with comorbid PTSD and mTBI reporting subjective complaints.

For more information on trauma symptoms, visit:

🚰 Resource

To access the study abstract, click here:

🛛 🛃 Abstract

This work was supported by the Assistant Secretary of Defense for Health Affairs endorsed by the Department of Defense, through the Psychological Health/Traumatic Brain Injury Research Program Long-Term Impact of Military-Relevant Brain Injury Consortium (LIMBIC) Award/W81XWH-18-PH/TBIRP-LIMBIC under Awards No. W81XWH1920067 and W81XWH-13-2-0095, and by the U.S. Department of Veterans Affairs Awards No. 101 CX002097, 101 CX002096, 101 HX003155, 101 RX003444, 1