



NATIONAL COALITION *for* HOMELESS VETERANS

“Challenges Associated With Screening for Traumatic Brain Injury Among US Veterans Seeking Homeless Services”

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Quick Takeaways:

- The prevalence of traumatic brain injury (TBI) among homeless veterans is higher than the population at large.
- TBI-4, the tool used by VA facilities to screen for TBI may underestimate the rate of TBI among veterans and homeless veterans.
- Comprehensive TBI assessment tools, such as the Ohio State University Traumatic Brain Injury Identification-Method (OSU TBI-ID), may provide more accurate measurements of TBI prevalence.

Study:

Researchers wished to understand the effectiveness of current TBI screening tool, TBI-4, used by the VA, in comparison to the gold standard tool of OSU TBI-ID, and to understand what the rate of TBI among the homeless veteran population was in comparison to the overall homeless population. Researchers examined data from two VA hospitals, one on the west coast and one on the east coast, comparing records of 313 veterans who were tested with both TBI-4 and OSU TBI-ID.

TBI-4 is a four-question screening tool used by VA hospitals. Researchers coded any positive response to questions 1, 3, and 4 as possible TBI, with a positive response to question 2 as probable TBI. Questions 1, 3, and 4 could indicate injury without TBI, whereas question 2 concerns loss of consciousness, an event highly associated with TBI. OSU TBI-ID is a more comprehensive diagnostic tool. Researchers compared the results of TBI-4 to OSU TBI-ID.

Findings:

Researchers found that when screening with TBI-4, the prevalence of probable TBI was 47%, and the prevalence of possible TBI was 59%. They also found that TBI-4 was not as specific or sensitive as OSU TBI-ID, and that TBI-4 did not identify 36% of veterans who had TBI, based on OSU TBI-ID.

Conclusion:

Researchers believe that TBI-4, the tool currently used by the VA to screen for TBI, underestimates the rate of TBI among veterans and homeless veterans. While TBI-4 suggests that homeless veterans suffer TBI at higher rates than the population at large, it does not suggest that they suffer at higher rates than the homeless population at large. However, because researchers believe that this is an underestimation of the true rate of TBI among homeless veterans, and given the documented effects of TBI and its associated outcomes, they recommend that a more comprehensive assessment tool, such as OSU TBI-ID be used in lieu of TBI-4.

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