

Retrieval practice improves memory in severe traumatic brain injury

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Kessler Foundation researchers have shown that retrieval practice can improve memory in individuals with severe traumatic brain injury (TBI). "Retrieval Practice Improves Memory in Survivors of Severe Traumatic Brain Injury," was published as a brief report in the current issue of *Archives of Physical Medicine & Rehabilitation* Volume 95, Issue 2 (390-396) February 2014. The article is authored by James Sumowski, PhD, Julia Coyne, PhD, Amanda Cohen, BA, and John DeLuca, PhD, of Kessler Foundation.

More information: [www.archives-pmr.org/article/S... \(13\)01118-0/abstract](http://www.archives-pmr.org/article/S... (13)01118-0/abstract)

Provided by Kessler Foundation

"Despite the small sample size, it was clear that [retrieval practice](#) (RP) was superior to other learning strategies in this group of [memory](#)-impaired individuals with severe TBI," explained Dr. Sumowski.

Researchers studied ten patients with severe TBI and memory impairment (

Results showed that recall was better with RP than with MR or SR. Moreover, RP was more effective for memory after short delay, and was the only strategy that supported memory after long delay. This robust effect indicates that RP would improve memory in this group in real-life settings. "If these individuals learn to incorporate this compensatory strategy into their daily routines, they can improve their memory," Dr. Sumowski noted. "For example, rather than re-reading an article several times, it would be more effective if they quizzed themselves periodically, eg, after each paragraph or page."

Future randomized controlled trials of RP training are needed to confirm the benefits of RP in larger numbers of patients with TBI, according to Dr. DeLuca, VP of Research and Training. Another challenge is convincing patients that this strategy is effective. "Most people, with and without TBI, favor MR for learning and memory," said Dr. DeLuca. "We will need to educate [individuals](#) with TBI about the benefits of RP."

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