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PAIN PROCESSING IN POSTTRAUMATIC STRESS DISORDER

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Although posttraumatic stress disorder (PTSD) is associated with chronic pain, preliminary evidence suggests reduced experimental pain sensitivity in this disorder. The questions addressed in the present study were whether pain perception would also be reduced in PTSD patients who are not suffering from chronic pain symptoms, and whether a reduction in pain sensitivity would also be present in combat veterans who did not develop PTSD. For this, we determined thermal detection and pain thresholds in 10 male combat-related PTSD patients, 10 combat control subjects (no PTSD) and 10 healthy controls without combat experience. All subjects were pain free. First, we measured thermal sensory thresholds with ramped heat and cold stimuli using the method of limits. Ramped thermal sensory stimulation revealed no deficits for the detection of (non-noxious) thermal stimuli between groups. In contrast, heat and cold pain thresholds in both combat groups (PTSD and combat controls) were significantly increased compared to healthy controls. However, these stimuli could not distinguish between the two groups due to ceiling effects. When using longer-lasting heat stimulation at different temperatures (30 s duration; method of fixed stimuli), we found significantly lower frequency of pain reports in PTSD patients compared with both combat and healthy controls, as well as significantly lower pain ratings. Our results suggest an association of PTSD with reduced pain sensitivity, which could be related to PTSD-related (neuro-)psychological alterations or to a pre-existing risk factor for the disorder.