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Neurotherapy of TBI/PTSD in OEF/OIF Veterans.

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Esty ML and Nelson D

Background: There is a critical need to develop more effective treatments to address complex trauma spectrum (e.g., TBI, PTSD) symptoms manifested in veterans of the Afghanistan and Iraq wars. Recent developments in neurotherapy suggest electromagnetic (EM) stimulation of brainwave activity may be beneficial.

Objective: To conduct a pilot trial of the efficacy of the Flexyx Neurotherapy System (FNS) that uses minute EM pulses to subliminally stimulate the EEG.

Methods: Six OEF/OIF male and female veterans with mixed TBI/PTSD symptom syndromes referred to the Neurotherapy Center of Washington were treated with an experimental adaptation of FNS for up to 25 sessions. Measures completed at pre- and immediately post-treatment included the Neurobehavioral Functioning Inventory (NFI; Depression, Somatic, Attention/Memory, Communication, Aggression, and Motor scale scores) and Post-Traumatic Stress Disorder Scale (PTSD; Total as well as Re-experiencing, Avoidance, and Arousal subscale scores), and individual treatment session 0-10 ratings of current symptoms (fatigue, cognitive clouding, sleep, anxiety, depression, irritability/anger) and activity levels.

Results: Statistically significant (p 's < .05) pre- to post-treatment paired t test comparisons were in evidence for the NFI Depression, Somatic, Attention/Memory, Communication, and Motor scales, and for the PTSD Scale Total and Re-experiencing and Avoidance scores. Linear trend analyses indicated significant slopes (betas with all p 's < .001) in evidence for decreases in all current symptom ratings and increased activity levels.

Conclusion: FNS is a potentially effective treatment for mixed TBI/PTSD syndromes in veterans. A larger sample and longer term follow up data are being collected to further substantiate these findings.