Neuronic and THOR devices reduce brain fog for Long COVID subjects in clinical trial

MARTINSBURG, W.Va., April 13, 2023 (PRNewswire) -- Dr. Robert Bowen and Dr. Praveen Arany led an open label, proof-of-concept clinical study, entitled Innovative start-up company Neuronic debuts home-based Light Therapy treatment for Long COVID, which examined the efficacy of two photobiomodulation devices for improving Long COVID symptoms, specifically brain fog and general fatigue.

The study employed the Neuradiant 1070, a LED-based transcranial photobiomodulation (PBM) device designed to enhance brain health and wellness developed by Neuronic, and the NovoTHOR Whole Body Light from Quietmind, which combined red and near-infrared LED light to the entire body. The Neuradiant 1070 was developed based on research at Quietmind Foundation.

The study involved two subjects with Long COVID symptoms that included slowed thinking and reactions, mental fatigue, confusion, and impaired verbal articulation. The subjects were randomly assigned to PBM treatment using the Neuradiant 1070 or the NovoTHOR Whole Body Light. Both groups received three 14-minute PBM treatments per week for 4 weeks. Clinical changes were measured using quantitative EEG (QEEG) and Event Related Potentials (ERP) recordings of surface brain electrical activity and several standard neuropsychological measures of cognition and executive functioning.

All participants reported their cognitive functioning had returned to normal or better than normal at the completion of the month-long trial period. The study results showed significant improvement in the subjects' cognition, executive functions, processing speed, and self-reported level of improvement.

Event Related Potential (ERP) analysis showed subjects' significant improvement in their responses to auditory and visual stimuli following PBM treatment. Improvements were also correlated with an increase in Digit Symbol Substitution (DSST) scores showing improvement in attention and information processing speed.

According to a study published in Nature Reviews Neuroscience, at least 66 million individuals worldwide are estimated to have Long COVID, with cases increasing daily. Clinicians are therefore seeking better methods to safely and equally alleviate Long COVID's debilitating symptoms. PBM is gaining interest in the scientific community for its potential as a safe, effective, low-cost, non-invasive approach for treating Long COVID, as this study's results now demonstrate. Dr. Robert Bowen added, 'Both treatments have demonstrated a significant effect in improving cognitive function in subjects who presented brain fog after infection with COVID-19.' Expanded multicenter feasibility trials are currently being developed.

The study was conducted with funding from the Office of the Governor of West Virginia and received guidance from the Foundation for Photobiomodulation Research. Marván Breeman, PhD, President of the Quantam Foundation, as well as Dr. Mary Hendrix, President of Shepherd University, who provided vision and support for the project.

Full paper available here.

For more about Neuronic's latest technology, see Neuronic's website.

Also from this source
Innovative start-up company Neuronic debuts home-use brain-enhancing infrasound device, surpassing $1.2 million in sales.

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