Background
The Mollii suit, a garment with 58 built in electrodes, provides transcutaneous electrical stimulation to selected regions across the body. The stimulation induces pain inhibiting mechanisms in the central nervous system (CNS) and affects neurohormonal levels, leading to modulation of the CNS through activation of sensory afferent pathways. It is an approved non-pharmacological, non-invasive treatment to reduce spasticity and improve motor function in individuals with CNS lesions. Anecdotal evidence shows benefit in individuals with chronic pain syndromes.

Objectives
Investigate the Mollii Suit effect on pain in adults with different pain diagnosis.

Material & Methods
An open-label uncontrolled study included 200 adults who used Mollii suit therapy for one-hour. 74 were diagnosed with Fibromyalgia, 29 with Parkinson, while other diagnosis had a frequency < 20. 7 patients whose diagnosis type occurred only once were excluded from the study.

Patients (Male: 75, Female: 118) were asked to fill a Visual Analogue Scale (VAS) just before the intervention (VAS-0), immediately afterwards (VAS-1) and twenty-four hours (VAS-24) later.

Results
VAS-0 was 6.5±1.24. A highly significant drop was noted in VAS-1 (3.46±1.4) and VAS-24, (4.72±1.68), paired test p-values <0.001. A mixed-effect model, used to assess VAS change while controlling for sex, age, and diagnosis type, showed a significant drop in VAS-1 and VAS-24.

The VAS-1 coefficient was -3.036 (p<0.001) while the VAS-24 coefficient was -1.789 (p<0.001).

The results were not affected by the diagnoses, age or sex of the patient.

Conclusion
Wearing the Mollii suit for 1 hour demonstrated significant subjective improvements in VAS scores. Placebo controlled studies are needed to further prove the efficacy of Mollii suit in treatment of pain.

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