

Table 22. Physical Stimulation for Anxiety Following SCI

Author Year Country Research Design PEDro Score Total Sample Size	Methods	Outcome
<p>Tan et al., (2011) USA RCT PEDro=8 N_{Initial}=105 N_{Final}=100</p>	<p>Population: Mean age=52yr; Gender: males=90, females=15; Level of injury: paraplegia=66, quadriplegia=37, unknown=2; Severity of injury: incomplete=52, complete=42, unknown=11; Mean time post injury=15yr; Anxiety status=symptoms. Intervention: Individuals with chronic neuropathic pain were randomized to receive active (treatment, n=46) or sham (control, n=59) cranial electrotherapy stimulation (CES) 1hr/d for 21d. Outcomes were assessed pre and post treatment. Outcome Measures: Center for Epidemiologic Studies Depression Scale – Short Form (CES-D-SF), State-Trait Anxiety Inventory – Short Form (STAI-SF).</p>	<ol style="list-style-type: none"> 1. At baseline, the treatment group had significantly poorer scores on STAI-SF ($p<0.05$). 2. There was no significant main effect of time on STAI-SF in either group. 3. There were no significant time x group interactions on STAI-SF.
<p>Soler et al., (2010) Spain RCT PEDro=8 N=39</p>	<p>Population: Mean age=45yr; Gender: males=31, females=9; Level of injury: paraplegia=30, quadriplegia=10; Severity of injury: incomplete=8, complete=32; Mean time post injury=9yr; Anxiety status=symptoms. Intervention: Individuals with chronic neuropathic pain were randomized to receive transcranial direct current stimulation (tDCS, n=10), visual illusion (VI, n=10), tDCS with VI (n=10), or sham tDCS (placebo, n=10) during 10 sessions over 2wk. Outcomes were assessed pre and post treatment, and 2,</p>	<ol style="list-style-type: none"> 1. NRS-A score significantly decreased in the tDCS, tDCS+VI, and VI groups ($p<0.019$), but not the placebo group. 2. NRS-A score improvements were only maintained in the tDCS+VI group at all follow-ups ($p<0.04$).

	<p>4, and 12wk follow-up.</p> <p>Outcome Measures: Numerical Rating Scale for Anxiety (NRS-A).</p>	
<p>Fregni et al. (2006) USA RCT PEDro=8 NInitial=17 NFinal=15</p>	<p>Population: Mean age=35yr; Gender: males=14, females=3; Level of injury: paraplegic=8, quadriplegic=9; Severity of injury: incomplete=6, complete=11; Mean time post injury=3.5yr; Anxiety status=symptoms.</p> <p>Intervention: Individuals with central pain were randomized to receive active (treatment, n=11) or sham (control, n=6) transcranial direct current stimulation (tDCS) 20min/d for 5d. Outcomes were assessed at baseline, 1-5d pre and post treatment, and 16d follow-up.</p> <p>Outcome Measures: Beck Depression Inventory (BDI), Visual Analogue Scale-Anxiety (VAS-A).</p>	<p>1. On VAS-A, there was a significant effect of time ($p=0.001$), but not group ($p=0.42$) or time x group ($p=0.99$).</p>
<p>Diego et al. (2002) USA RCT PEDro=8 N=20</p>	<p>Population: Mean age=39yr; Gender: males=15, females=5; Level of injury: quadriplegia; Time post injury>1yr; Anxiety status=symptoms.</p> <p>Intervention: Participants were randomized to receive massage therapy (treatment, n=10) or perform a home exercise routine (control, n=10) 2x/wk for 5wk.</p> <p>Outcome Measures: Center for Epidemiologic Studies Depression Scale (CES-D), State Trait Anxiety</p>	<p>1. The treatment group showed a significantly greater decrease in STAI ($p<0.01$) scores after treatment than controls.</p>

	Inventory (STAI).	
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