

Table 1. Systematic Reviews and Meta-Analysis: All Treatments

Author Year; Country Date included in the review Number of articles Level of Evidence Type of Study AMSTAR Score	Methods Databases Outcome Measures	Conclusion
<p>Alashram et al. (2021) Jordan Review of published articles between inception and January 2021 AMSTA R=9 N=16</p>	<p>Method: Comprehensive literature search of experimental studies examining the effects of the Lokomat on the impairments following incomplete SCI.</p> <p>Databases: PubMed, SCOPUS, PEDro, REHABDATA, MEDLINE, EMBASE, and web of science</p> <p>Level of evidence: 13 RCTs (PEDro scores ranged from 2-8, with a median score of 6), 2 clinical controlled trails, and 1 pilot study.</p> <p>Questions/measures/hypothesis: To examine the impacts of the Robot- assisted gait training (RAGT) 'Lokomat' on the impairments following SCI.</p>	<p>1. There is insufficient evidence for the effect of the Lokomat on depression, balance, cardiorespiratory fitness, and quality of life, among individuals with SCI.</p>
<p>Davari et al. (2020) Iran reviews of published articles up to December 2018 AMSTA R=9 N=9</p>	<p>Method: A systematic review and meta-analysis of English RCTs on humans including any age group; comparing Pregabalin to Gabapentin or placebo; and measuring neuropathic pain as an outcome.</p> <p>Databases: PubMed, Cochrane Library, Embase, Scopus, the Web of Science.</p> <p>Level of evidence: Poor methodological quality RCTs: using Cochrane Collaboration's tool.</p> <p>Questions/measures/hypothesis :</p>	<p>1. Anxiety and depression symptoms were improved by Pregabalin use when compared to placebo ($p < .05$).</p>

	to examine the safety and efficacy of pregabalin (PGB) and gabapentin (GBP) in the treatment of neuropathic pain due to SCI.	
<p>Hearn & Cross (2020) United Kingdom Review of published articles from 1996 to 2019. AMSTA R=8 N=5</p>	<p>Method: Comprehensive literature search of English studies with adults (18yr+) living with SCI, regardless of etiology, who had mindfulness training as a part of their intervention. Databases: PsycINFO, PsycARTICLES, MEDLINE Level of evidence: Three of the papers were of poor/low quality, while two were moderate quality according to the Cochrane Collaboration Risk of Bias tool. Questions/measures/hypothesis: To synthesize and critically appraise available quantitative and qualitative evidence on the effects of Mindfulness-Based Interventions (MBIs) on pain and pain-related outcomes, depression, anxiety, and QoL in people with SCI; to make specific recommendations for future research based on current knowledge.</p>	<ol style="list-style-type: none"> 1. One study reported no change in depressive symptoms, while the other four studies reported significant improvements in depression symptoms ($p < .05$). 2. Four studies examined anxiety but only one reported significant decrease in anxiety symptoms ($p < .05$), and another study showed no change. The other studies did not use statistical analysis to determine the impact of their interventions. 3. Two studies examined changes in QoL, both of which reported no significant changes in QoL following MBIs.
<p>Yu et al. (2020) China Published up to January 31, 2019 AMSTAR=7 N=11</p>	<p>Method: Reviewed RCTs that compared noninvasive brain stimulation (NIBS) with sham stimulation for neuropathic pain (NP), depression, and anxiety levels for SCI patients, and conducted a meta-analysis. Databases: Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, Embase, PsycINFO, Physiotherapy Evidence Database (PEDro) Level of evidence: 10 RCTs with level 1a evidence (PEDro ≥ 6), and one RCT with level 1b evidence (PEDro=5). Questions/measures/hypothesis: The aim of meta-analysis was to examine the effectiveness of NIBS in the treatment of NP, and</p>	<ol style="list-style-type: none"> 1. Noninvasive brain stimulation showed no beneficial effect over sham stimulation on the improvement of depression ($p > .05$), but had significant effect on improvement of anxiety symptoms ($p < .05$).

	depression and anxiety symptoms among individuals with SCI.	
<p>Onakpoya et al. (2019) United Kingdom Database inception to January 2018 AMSTAR=8 N=26</p>	<p>Method: A meta-analysis of RCTs of adults who received pregabalin to manage neuropathic pain. Databases: MEDLINE, Embase, Cochrane Central Register of Controlled Trials (CENTRAL) Level of evidence: 26 RCTs with moderate to high risk of biases measured by Cochrane Risk of Bias criteria. Questions/measures/hypothesis: The objective of this rapid review was to evaluate the evidence for benefits and harms of pregabalin in the treatment of neuropathic pain in adults, using evidence from published randomized clinical trials (RCTs).</p>	<ol style="list-style-type: none"> 1. Out of the four studies that looked at anxiety and depression symptoms, there were no significant differences in the HADS-anxiety scores between groups ($p=.14$) or in HADS-depression scores between groups ($p=.54$). 2. Moderate quality evidence showed that pregabalin significantly reduced sleep interference scores ($p<0.00001$). 3. Four studies assessed QOL, using EuroQoL-5, showed conflicting results for the effect of pregabalin on QOL improvement after SCI.

<p>Yu et al. (2019) China</p> <p>Review of published articles from 1946-May 2018 (Pubmed), 1974-May 2018 (EMBASE) and May 2018 (Cochrane Library) AMSTAR=7 N=5</p>	<p>Method: Comprehensive literature search of RCTs of SCI participants with SCI-induced neuropathic pain. Meta Analysis was conducted.</p> <p>Databases: Pubmed, EMBASE, Cochrane Library</p> <p>Level of evidence: 3 RCTs, Moderate quality (III Grade): one crossover clinical trial and one open-label trial</p> <p>Questions/measures/hypothesis: To show the efficacy of pregabalin and also confirm the safety of using pregabalin for the treatment of SCI- related neuropathic pain.</p>	<ol style="list-style-type: none"> 1. Pregabalin administration elevated the mental status of patients with SCI-induced neuropathic pain. 2. Decreased Hospital Anxiety and Depression Scale (HADS) anxiety and depression scores were found in pregabalin and placebo groups at the endpoints. 3. HADS anxiety and depression scores of the pregabalin group was significantly lower than those of the placebo group HADS anxiety (p=.05) and HADS depression (p=.002).
<p>Dorstyn et al. (2011) Australia</p> <p>Review of published articles between January 1980 and April 2010 AMSTAR=10 N=10</p>	<p>Method: Comprehensive literature search of English RCT, Cohort studies, case series, and review articles of traumatic SCI in adult age group (18+yr).</p> <p>Databases: MEDLINE, Psych Info, Cochrane Library, Meditext, CINAHL, Scopus.</p> <p>Level of evidence: Effect sizes were provided</p> <p>Questions/measures/hypothesis: Examine the effectiveness of cognitive behavioural therapy (CBT) in improving psychological outcomes post SCI.</p>	<ol style="list-style-type: none"> 1. Effect sizes for assertiveness, coping, self-efficacy, depression, acceptance, anxiety, locus of control and self-esteem ranged from very small to large post CBT treatment. 2. Moderate to large effect sizes were seen in quality-of-life post CBT treatment.

<p>Mehta et al. (2011) Canada Review of published articles between January 1990 to October 2010 AMSTAR=10</p>	<p>Method: Comprehensive literature search of English RCT, Cohort studies, case series, and review articles of traumatic SCI in adult age group (18+yr). A meta-analysis was conducted. Databases: MEDLINE, Psych Info, CINAHL, EMBASE. Level of evidence: <i>Moderate quality:</i> Downgraded high-quality studies, non- randomized trials, prospective cohort studies; <i>Low quality:</i> Retrospective observational, retrospective cohort and case-control studies; <i>Very low quality:</i> Case series, case reports, reviews, and others. Effect sizes were provided Questions/measures/hypothesis: Behavioural Therapy (CBT) in improving psychological outcomes post SCI.</p>	<ol style="list-style-type: none"> 1. One study demonstrated large effect sizes in the improvement of depression symptoms post CBT treatment; 4 studies demonstrated moderate effects; 4 studies demonstrated small effects. These effects were shown to last for up to 2yr in individuals diagnosed with major depressive disorder prior to the intervention. 3. Moderate effects sizes were seen on anxiety symptoms were seen in 2 studies post CBT treatment; 2 studies reported small effect sizes and 1 study reported no effect of CBT on anxiety symptoms post SCI. 4. CBT treatment resulted in small effects on self-esteem, coping and adjustment post SCI.
<p>Elliot & Kennedy (2004) USA Timeline not stated AMSTAR=7 N=9</p>	<p>Method: Comprehensive literature search of English RCT, Cohort studies, case series, and review articles of traumatic SCI in adult age group (18 + years). Databases: MEDLINE, PsycInfo. Level of evidence: <i>Moderate quality:</i> Downgraded high-quality studies, non- randomized trials, prospective cohort studies; <i>Low quality:</i> Retrospective observational, retrospective cohort and case-control studies; <i>Very low quality:</i> Case series, case reports, reviews, and others. Questions/measures/hypothesis: Examine the effectiveness of depression treatment post SCI.</p>	<ol style="list-style-type: none"> 1. There was moderate level evidence from 3 studies for psychological interventions in improving depressive symptoms post SCI. 2. There was high level evidence from 1 study and low-level evidence from 4 studies for the use of antidepressants for depressive symptoms post SCI. 3. Functional electrical stimulation (FES) was supported by 1 moderate level study.

