Table 2. Cognitive Behavioural Therapy Interventions

Author Year Country Research Design PEDro Score Total Sample Size	**Methods**	**Outcome**
CBT		
Zhao et al. (2021) China RCT PEDro=4 Level 2 N=72	**Population:** *Intervention Group* (psychological intervention; n=36): Mean age=49.39±13.88yr; Gender: males=26, females=10; Mean time post injury=not reported; Level of injury: Tetraplegia=100%; Severity of injury: AIS A=7, AIS B=23, AIS C=6; Depression status=moderate to severe as measured by the Zung Self-Rating Depression Scale *Control group* (conventional systemic treatment; n=36): Mean age=45.03±14.04yr; Gender: males=29, females=7; Mean time post injury=not reported; Level of injury: Tetraplegia 100%; Severity of injury: AIS A=8, AIS B=20, AIS C=8; Depression Status= Moderate to severe as assessed by the Zung Self- Rating Depression Scale. **Intervention:** Participants were randomly divided into psychological intervention or Conventional systemic treatment group. Psychological intervention group: received a mix of cognitive behavioural	1. There were significant differences in the SAS and SDS scores between the intervention group (psychological intervention group) and the control group (conventional systemic treatment group) at 3 months ($p<.01$), 6 months ($p<.01$), 1yr ($p<.01$), and 2yr ($p<.01$) post-surgery.

	psychotherapy, supportive psychotherapy, and medication in addition to conventional treatment. Conventional systemic treatment group: received general symptomatic treatment, surgical treatment, routine postoperative nursing, routine postoperative neurological exercise, postoperative respiratory exercise and the company of family members or nursing workers. Outcome measures were assessed pre-surgery, 3mo after surgery, 6mo after surgery, 1yr after surgery and 2yr after surgery. **Outcome Measures:** Zung Self-Rating Anxiety Scale (SAS), Zung Self-Rating Depression Scale (SDS), Medical Outcomes Study 36-item Short Form Health Survey (SF-36), American Spinal Injury Association (ASIA), Japanese Orthopedic Assessment (JOA).	
Burke et al. (2019) Ireland RCT PEDro=6 Level 1b NInitial=69 NFinal=68	**Population:** *Intervention Group* (Internet delivered cognitive behavioural pain management program (CBT- PMP); n=35): Mean age=50±12.3yr; Gender: males=25, females=10; Mean time post injury=16±11.8yr; Level of injury: cervical=10, thoracic-13, lumbar=7, unknown=8; Severity of injury: AIS A=1, AIS C=2, AIS D=3, unknown=29; Depression	1. No significant difference between intervention and control groups for WHOQOL-BREF and ISCI-QOLBDS (p>.05). 2. No significant group X time interaction for the HADS questionnaire, PSQI for sleep or CPAQ for pain acceptance (p>.05 for all).

	status=normal as assessed by the HADS. *Control group* (usual care; n=34): Mean age=52±13.8yr; Gender: males=27, females=7; Mean time post injury=16±12.6yr; Level of injury: cervical=7, thoracic=17, lumbar=7, unknown=3; Severity of injury: AIS A=3, AIS B=2, AIS C=1, AIS D=2, Unknown=26; Depression Status=borderline abnormal as assessed by the HADS. **Intervention:** Participants were randomized to receive internet delivered cognitive behavioural therapy pain management program (CBT- PMP) SPIRE (1 module and assignment/wk for 6wk) or the control group (continued to manage pain as per usual). Outcomes measures were assessed at baseline, post-intervention 6wk, and 3mo post-program completion. **Outcome Measures:** The World Health Organization Quality of Life Bref (WHOQOL- BREF), The international spinal cord injury quality of life basic data set, The International Spinal Cord Injury Pain Basic Data Set (ISCIPBDS), The Douleur Neuropathique en 4 Questions (DN4) interview, The Chronic Pain Acceptance Questionnaire-8 (CPAQ-8), The Brief Pain Inventory (BPI) Interference subscale, The Hospital Anxiety and Depression Scale (HADS), The Pittsburgh Sleep Quality Index (PSQI), Adverse events.	3. Post-intervention there was a moderate linear relationship observed between number of module where users engaged with 80% or more of the content and reductions in measures of NRS (p=.05), ISCIPBDS (p=0.08), LSF domain (p=.04), BPI (p=0.10) and HADS depression subscale (p=.10). 4. 3mo follow-up revealed a moderate linear relationship between module engagement and improvements in sleep quality (p=.06), AMS subcategory of ISCIPBDS (p=0.0), and the depression (p=.03) and anxiety (p=.05) subscales of HADS.

Coker et al., (2019) USA RCT PEDro=8 N=81	**Population:** Control Group (n=40): Mean age=52±15.3 yr; Gender: males=32, females=8; Time since injury=81.5 mo; Level of injury: complete=16, incomplete=24; Severity of injury: AIS A=16, B=3, C=8, D=13. Intervention Group (n=41): Mean age=48±12.8; Gender: males=34, females=7; Time since injury=95 mo; Level of injury: complete=19, incomplete=22; Severity of injury: AIS A=19, B=2, C=7, D=13. **Intervention:** Participants were randomized to either a control group in which they continued their normal rehabilitation or an intervention group in which they took part in an interactive cognitive behaviour therapy-based learning program for one session per wk, 2 hrs per session for 6 wk with assessments at baseline, post intervention and at 8-wk intervals post intervention. **Outcome Measures:** Moorong Self-Efficacy Scale (MSES), Generalized Self-Efficacy Scale (GSES), Diener Satisfaction with Life Scale (SWLS), Participation Assessment with Recombined Tools – Objective (PART-O), Patient Health Questionnaire – 9 (PHQ-9), and General Anxiety Disorder 7-Item (GAD-7).	1. Non-significantly greater increase in MSES for the treatment group compared to the control group from baseline to 6-wk and neither group showed significant difference from baseline to the 30-wk follow-up (p=0.15). 2. The treatment group showed significant improvements for the GSES, PHQ-9 and GAD-7 from baseline to 6- wk whereas the control group did not. 3. Neither group showed significant changes in SWLS or PART-O from baseline to 6-wk. 4. Despite the significant differences for the treatment group from baseline to 6-wk or from baseline to 30-wk follow-up, there are no significant differences in results between treatment and control.

Migliorini et al., (2016) Australia RCT PEDro=8 NInitial=59 NFinal=48	**Population:** Intervention group (n=34): Mean age=47.5±12.2 yr; Gender: males=25, females=9; Time since injury=11.4±11.9 yr; Level of injury: complete paraplegia=5, incomplete paraplegia=8, complete tetraplegia=1, incomplete tetraplegia=18, unknown=2. Waitlist control group (n=25): Mean age=52.8±12.9 yr; Gender: males=17, females=8; Time since injury=19.8±14.0 yr; Level of injury: compete paraplegia=7, incomplete paraplegia=13, complete tetraplegia=2, incomplete tetraplegia=2, unknown=1. **Intervention:** Participants were randomized to either an Electronic Personal Administration of Cognitive Therapy (Epact) group in which the participants completed 10-module skills or a Waitlist Control group with assessments at baseline, 3 mo follow-up and 6 mo follow-up. **Outcome Measures:** Depression, anxiety, and stress scale-short (DASS21), personal well-being index, helplessness subscale and score above normative threshold of the depression, anxiety and stress scale-short form (DASS21).	1. 71 individuals accepted the option to try the Epact, but 12 did not complete the intake process and those that completed the intake process and those that did not only differed significantly with regards to stress scores (p=0.05). 2. No significant differences between groups at baseline besides for time since injury (p=0.02) and level of injury distribution. 3. Dropouts from the intervention group did not differ significantly from those that did not drop out in any outcome measure. 4. At post-intervention, the Epact group showed a significant reduction in depression, anxiety and stress and satisfaction with life significantly improved (p<0.05 for all) while the waitlist control group improved significantly with a reduction in depression (p=0.01).

		5. Significant reductions in depression, anxiety and stress were maintained from post-intervention to 6 mo follow-up, and even reduced even more, albeit insignificantly.

Dorstyn et al., (2012) Australia RCT PEDro=6 N=40	**Population:** Age=53.5yr; Gender: males=69%, females=31%; Level of injury: paraplegia=24, tetraplegia=16. **Intervention:** Individuals with SCI were randomly assigned to receive telecounselling or standard inpatient care. Individuals in the treatment group received 12 weeks of biweekly phone motivational interviewing intervention for 20 mins. **Outcome Measures:** Depression Anxiety Stress Scale-21 (DASS-21)	1. Small improvement in depression (d=0.32) were seen among individuals that received telecounselling compared to standard treatment group post intervention. 2. 4 of the 8 individuals in the treatment group that reported mild, moderate or extremely severe levels of depression and/or anxiety reported no symptoms postintervention: with maintenance up to follow-up. 3. Individuals in the standard care group reported increase in clinically significant symptoms of depression over time.
Heutink et al., (2012) Netherlands RCT PEDro=6 NInitial=61 NFinal=59	**Population:** Mean age=58.8 yr; Gender: males=39, females=22; Duration of pain=5.4 yr; Type of pain=neuropathic.	1. No significant difference in HADS depression was seen between the two groups or over time.

	Intervention: Individuals with SCI with chronic neuropathic pain were randomly assigned to receive interdisciplinary pain management which included Cognitive Behavioural Therapy (CBT) and education or wait list control group. The intervention consisted of 10 sessions over 10-week period with a comeback session 3 weeks after the 10th session. **Outcome Measures:** Chronic Pain Grade Questionnaire; Hospital Anxiety and Depression Scale (HADS).	
Duchnick et al., (2009) USA RCT PEDro=4 N=40	**Population:** Coping effectiveness training (CET): Mean age=50.8yr; Gender: males=95%; Level of injury: tetraplegia=40%; Severity of injury: AIS A=30%; B=30%; C=5%; D=35%; Supportive group therapy (SGT): Mean age=54.6yr; Gender: males=100%; Level of injury: tetraplegia=70%; Severity of injury: AIS A=20%, B=20%, C=20%, D=40%. Depression status=mild (no severe psychiatric condition score based on Mini-Mental State Examination). **Intervention:** Participants were randomly allocated into either the CET group or the SGT group. Each inpatient group met 1x/wk for 60 min. The CET group focused on: stress and appraisal, problem solving, communication skills, behavioral strategies, cognitive strategies and social support/assertiveness. SGT group emphasized the sharing of experiences and information related to SCI, emotional and cognitive reactions, and support and education from peers and	1. No baseline differences were found. 2. Mood change was not affected by treatment condition. 3. Significant decrease in depression (CES-D) was seen at discharge ($p<0.05$). However, depression ($p<0.05$) increased significantly between discharge and follow-up (3 mo).

	psychologists. **Outcome Measures:** Center for Epidemiologic Studies Depression Scale (CES-D), State Trait Anxiety Inventory (STAI).	

Schulz et al., (2009) USA RCT PEDro=6 N=346	**Population:** Mean age=53 yr; Mean time since injury=8 yr. **Intervention:** Participants with SCI and their caregivers were randomly placed into 3 groups: caregiver only intervention; dual target intervention; information only control condition. Interventions were provided through computer telephone over a 6-month period. The intervention involved knowledge and cognitive behavioural skills for coping with SCI. **Outcome Measures:** Center for Epidemiologic Studies Depression Scale (CES-D), health symptoms, self-care problems, social integration.	1. Significant improvement in individuals with SCI's CES-D and health symptoms were seen in the dual treatment group compared to the caregiver only group (p=0.014 versus p=0.031). 2. Clinically significant improvement was also seen in caregivers in the dual target group compared to the caregiver only and control group on CES- D, burden, health symptoms.
Mehta et al. (2020) Canada Pre-Post Level 4	**Population:** *Intervention group* (ICBT; n=20): Mean age=54.7±16.2yr; Gender: males=11, females=9; Mean time post injury=12.1±15.9yr; Level of injury: paraplegia=8,	1. Depression (p <.001) and anxiety (p=.002) scores decreased significantly after ICBT therapy.

$N_{Initial}$=20 N_{Final}=18	tetraplegia=12; Severity of injury: incomplete=14, complete=6; Depression status=mild to moderate depression as assessed by the PHQ-9. **Intervention:** A group of participants was given internet-based Cognitive behavioural therapy (ICBT), based on chronic conditions course for SCI and case studies or vignettes. The Chronic Conditions Course consisted of five lessons delivered over 8wk. Outcomes were measured at baseline, at post treatment, and at 3mo follow-up. **Outcome Measures:** Feasibility, treatment satisfaction questionnaire (TSQ), patient health questionnaire (PHQ-9), generalized anxiety disorder-7 (GAD-7), Spinal Cord Injury Quality of Life (SCI-QOL), International Spinal Cord Injury Basic Pain Data Set (ISCIBPD).	2. Significant improvements were found on SCIQoL subscales of Grief ($p<.001$), Self -Esteem ($p=.04$), Resilience ($p<.002$), and Positive Affect ($p<.001$) from baseline to post-intervention and follow-up.
Li et al., (2020) China Pre-Post N=20	**Population:** Intervention group (n=9): Mean age=41.7±8.1 yr; Gender: males=9, females=0; Time since injury=8.1±4.1 mo; Level of injury: paraplegia=5, tetraplegia=4; Severity of injury: complete=5, incomplete=4. Comparison group (n=11): Mean age=43.0±15.7 yr; Gender: males=11, females=0; Time since injury=8.2±4.1 mo; Level of injury: paraplegia=7, tetraplegia=4; Severity of injury: complete=5, incomplete=6. Gender: males=11, females=0; Time since injury=8.2±4.1 mo; Level of injury: paraplegia=7, tetraplegia=4; Severity of injury: complete=5, incomplete=6.	1. Recruitment rate of this study was 88% and the retention rate was 100%, but 2 participants in the COSP group did not attend the minimum number of sessions necessary for analysis. 2. Participants reported that the meeting times and the length of each meeting were very appropriate, while one

	Intervention: Participants were assigned to either an 8- wk coping oriented supportive program (COSP) or a comparison group going about their usual business. **Outcome Measures:** Feasibility, acceptability, brief coping orientations to problems experienced inventory, experienced inventory, Moorong self- efficacy scale, hospital anxiety and depression scale (HADS), quality of life enjoyment and satisfaction questionnaire – short form and six-item social support questionnaire.	participant mentioned meeting more frequently on a weekly basis. 3. Encouragement and support from peers were reported as motivation enhancers and enjoyed the communication during the meetings. 4. Significantly higher self-efficacy scores in the COSP group compared to the comparison group (p=0.048). 5. Statistically significant effects of the COSP on participant's life enjoyment and satisfaction (p=0.005) and satisfaction of social support (p=0.022). Statistically significant improvements in self- efficacy (p=0.008), depression (p=0.007) and satisfaction with medicine (p=0.046) for the COSP group, but not the comparison group.

	Gender: males=11, females=0; Time since injury=8.2±4.1 mo; Level of injury: paraplegia=7, tetraplegia=4; Severity of injury: complete=5, incomplete=6. .	meeting were very appropriate, while one participant mentioned meeting more frequently on a weekly basis.
Dear et al., (2018) Australia Pre-Post N=68	**Population:** Mean age=48.0±13.0 yr; Gender: males=34, females=34; Time since injury=8.0±10.0 yr; Severity of injury: complete=15, incomplete=44, unsure=9. **Intervention:** Participants completed five online lessons and homework tasks for pain management with weekly support from a clinical psychologist. **Outcome Measures:** Pain disability index (PDI), patient health questionnaire 9-item (PHQ-9), generalized anxiety disorder scale 7-item), Wisconsin brief pain questionnaire (WBPQ), pain self-efficacy questionnaire (PSEQ), pain catastrophizing scale (PCS), satisfaction with life scale (SWLS	1. Significant overall effect observed for pain-related disability ($p<0.001$), anxiety ($p<0.001$) and depression ($p<0.001$), as well as improvements in all three from baseline to post-treatment ($p<0.001$) and even further improvements at 3-mo follow-up ($p<0.015$). 2. Significant overall time effect observed for pain self-efficacy ($p<0.001$), pain catastrophizing ($p<0.001$) and life satisfaction ($p<0.001$). Significant improvements from baseline to post- treatment for pain catastrophizing and life satisfaction ($p<0.001$) with life satisfaction improving from post- treatment to follow-up ($p=0.006$) but not pain catastrophizing

		(p=0.062).

Verwer et al., (2016) Netherlands Pre-Post NInitial=14 NFinal=7	**Population:** Mean age=44.7 yr; Gender: males=11, females=3; Time since injury=15 mo; Level of injury: paraplegia=10, tetraplegia/unknown=4; Severity of injury: complete=6, incomplete=8. **Intervention:** Participants engaged in an online self-help program called Psyfit in which they were asked to complete 2 of 6 modules with 4 wk given to complete each module and assesments taken pre-	1. 75% of the participants completed the first module and 39% completed the second, 11 participants finished 50% or more of the first module and 7 completed the entire first module and started with the second module and these were considered the study completers. 2. Five of the seven completers reported

	intervention, post-intervention and at 3-mo follow-up. **Outcome Measures:** Adherence, satisfaction, mental health inventory-5 (MHI-5), center for epidemiological studies depression scale (CES-D), and the Warwick-Edinburgh mental well-being scale.	that the program was good, and they would recommend it to others. 3. The main criticism was that the program was not specified to SCI participants enough, and the other was that the program modules were too long and rigid, making them difficult to want to complete. 4. Study completers showed significant improvements in the MHI-5 scores from pre- to post-intervention ($p<0.05$) and all scores decreased significantly between post-intervention and 3-mo follow-up ($p<0.05$), resulting in no significant difference from pre-intervention to 3-mo follow-up ($p>0.05$).
Heutink et al., (2014) Netherlands Follow-Up N=29	**Population:** Mean age=56.5yr; Gender: males=21, females=8; Level of injury: paraplegia=18, quadriplegia=11; Severity of injury: incomplete=14, complete=15; Mean time post injury=5.4yr; Depression status=symptoms. **Intervention:** Participants who received treatment in Heutink et al.,(2012) were assessed at 6, 9, and 12mo follow-up. **Outcome Measures:** Hospital Anxiety & Depression Scale (HADS).	1. HADS-depression scores did not change over time.

Migliorini et al., (2011) Australia Pre-Post N=3	**Population:** Age range=41-65yr; males=2, females=1; Severity of injury: incomplete=2, complete=1. **Intervention:** Participants were offered a computer- based Cognitive Behavioural Therapy (CBT) intervention involving 10 modules. **Outcome Measures:** Depression Anxiety Stress Scale-21 (DASS-21), PWI, SCL EWQ	1. A reduction in DASS-21 depression and stress scale was seen in 2 Individuals: anxiety scale in all three individuals. 2. Overall quality of life improved in 1 individual and remained the same in 2 individuals.
Norrbrink Budh et al., (2006) Sweden PCT N=38	**Population:** Treatment: Mean age=53.2yr; Gender: males=9, females=18; Level of injury: C=15, Th=6, L/S=6; Severity of injury: AIS: A=4, C=3, D=19, E=1; Controls: Mean age=49.9yr; Gender: males=5, females=6; Level of injury: C=4, Th=7; Severity of injury: AIS: A=6, D=5; Depression status=mixed. **Intervention:** The intervention group received education, Cognitive Behavioural Therapy (CBT), relaxation and body awareness training totaling 5 hr/wk for 10 wk while matched controls received no treatment for neuropathic pain. Depression was assessed as a secondary outcome. **Outcome Measures:** Hospital Anxiety and Depression Scale (HADS).	1. At 1 yr follow up, the sign test showed no significant change in depression levels HADS in the treatment group from baseline. 2. However, the treatment group showed systematic decrease in depression as measured by relative change in position (95% confidence interval) at 1 yr follow up. 3. Depression also decreased systematically in the treatment group compared to the control group at 1 yr follow up; however, 4. the sign test showed no significant change

Kennedy et al., (2003) United Kingdom Cohort NInitial=85; NFinal=85	**Population:** SCI: Age=16-65 yr; Cause of injury: trauma; Chronicity=acute. Depression status=mild (BDI=15) **Intervention:** Consisted of 60- 75 min sessions 2x/wk for 3.5 wk in small groups of 6-9 participants. Session topics were: normalizing stress, appraisal skills, problem solving, examination of thoughts feeling and behavior, awareness of negative assumptions, and choosing appropriate ways both to cope and to increase social support. **Outcome Measures:** Beck Depression Inventory (BDI), State Trait Anxiety Inventory (STAI), Coping Strategies Scale (CSS), Self-Perception Scale (SPS), and Functional Impairment Measure (FIM). Measures were taken before and immediately after the intervention, and at a 6wk follow-up with the intervention group, and every 6 weeks with the historic control group.	1. Mood: Depression scores decreased for the intervention group following the intervention (p=0.001).
Craig et al., (1999) Australia Case Control NInitial=58; NFinal=58	**Population:** SCI: Age=16-73 yr; Gender: males=57, females=12; Severity of injury: complete=68%-71%; Chronicity=acute. Depression status=mixed group.	1. Re-admission: More controls were readmitted following discharge (p<0.05).

	Intervention: 10 wk in small groups. Each session lasted 1.5-2 hrs replacing normal rehab therapy. Individuals underwent Cognitive Behavioural Therapy (CBT) attempts to change behaviour and feeling associated with the problem and considered maladaptive. Main aim of the program was to provide cognitive and behavioural skills to cope with the psychological and social difficulties encountered upon entering the community (as described above). **Outcome Measures:** Re-admissions, drug usage, relationships, social discrimination, self-reports of adjustment	2. Drug usage: Controls were found to have higher self-reported drug usage than the treatment group (cases) ($p<0.05$). 3. Percentages are reported for each area measured. 4. Relationships and Social discrimination: No significant differences were noted between the two groups in relation to the types of relationship each person developed. 5. Self-reports of adjustment: Treatment groups said they had a higher number of persons who felt they had adjusted well compared to the controls ($p<0.01$).

King & Kennedy (1999) United Kingdom PCT NInitial=38; NFinal=38	**Population:** Age=16-65 yr; Chronicity=acute; Depression status=mild **Intervention:** Consisted of 60- 75 min sessions 2x/wk with 6-9 people. Sessions included a mixture of didactic presentations, practical exercises and time allocated for open group discussions. The following components made up the program: appraisal training, cognitive behavioural coping skills training, and strategies for choosing an adaptive match between appraisals and coping skills, and obtaining and maintaining social support. **Outcome Measures:** Functional Impairment Measure (FIM), Social Support Questionnaire (SSQ), Beck Depression Inventory (BDI), State Trait Anxiety Inventory (STAI), COPE.	Pre-intervention comparisons of groups: 1. The intervention group used religion significantly more and humour significantly less as coping strategies ($p<0.05$) than did controls. 2. There were no pre- intervention differences between the groups on range of injury, social support, FIM scores, other coping strategies, depression, or anxiety. 3. Post-intervention comparison of groups: Across time there were significant decrease in the depression scores ($p<0.05$).

Craig et al., (1998) Australia Cohort NInitial=69; NFinal=58	**Population:** Treatment: Mean age=31yr; Gender: males=23; females=5; Depression status=mixed group **Intervention:** 10 wk inpatient program. Small groups (4-5/group) for 1.5 hr/wk. The major aim was to provide cognitive and behavioural skills to cope with the psychological and social difficulties encountered upon entering the community. Cognitive Behavioural Therapy (CBT) included muscle relaxation, visualization techniques, self- hypnosis and cognitive restructuring, social skills and assertiveness training, and sexuality sessions. **Outcome Measures:** State Trait Anxiety Inventory (STAI), Beck Depression Inventory (BDI).	1. Significant differences noted for depression overall, ($p<0.05$). 2. Both the treatment and the control groups appeared to be less depressed 1 and 2 yr after injury. 3. For individuals who scored high on the depression scale before therapy, (9 from each group) there were significant differences after treatment. ($p<.01$) with the control group reporting higher levels of depressive mood. 4. Depressive mood scores showed significant differences across time ($p<0.01$) with scores 1 and 2 yr post injury significantly lower than pretreatment scores ($p<0.01$).

Craig et al., (1997) Australia PCT N=69	**Population:** SCI: Age=16-73 yr; Gender: males=57, females=12; Severity of injury: complete =68%-71%; Chronicity=acute. Depression status=mixed group **Intervention:** 10 wk program. Small groups (4-5/group), for 1.5 hr/wk. Provided cognitive and behavioural skills to cope with the psychological and social difficulties encountered upon entering the community. Cognitive Behavioural Therapy	1. Significantly greater self-esteem for treatment group ($p<0.01$). Taking this into account, no significant differences between the groups were found immediately after injury or 1 yr later. 2. No significant initial

	(CBT) included muscle relaxation, visualization techniques, self-hypnosis and cognitive restructuring, social skills and assertiveness training, and sexuality sessions. **Outcome Measures:** State Trait Anxiety Inventory (STAI), Beck Depression Inventory (BDI), Rosenberg Self-Esteem scale.	differences were found between the groups on anxiety and depression when comparing pre, post and 1 yr scores. 3. BDI scores were significantly lower for both conditions 1 yr after injury ($p=0.014$). 4. Those who scored>14 on the depressive mood scale were analyzed using repeated measures ANOVA. 22 people (from both groups) were examined. Significant differences were noted between the groups ($p<0.01$). 5. Significant differences were also noted across time for the BDI scores ($p<0.01$). Post hoc tests showed that the treatment group had significantly greater levels of improvement across time ($p<0.05$).
Coping-oriented Supportive Programs		

Li et al. (2020) Hong Kong RCT PEDro=5 Level 2 NInitial=99 NFinal=88	**Population:** *Intervention group* (Coping-Oriented Supportive Programme (COSP); n=50): Mean age=39±11.7yr; Gender: males=43, females=7; Mean time post injury=6.9±4.2mo; Level of injury: tetraplegia=13, paraplegia=37; Severity of injury: complete=24, incomplete=26; Depression status=mild according to mean HADS-D *Control group* (Attention group; n=49) Mean age=43±10.7yr; Gender: males=44, females=5; Mean time post injury=8.6±4.2mo; Level of injury: tetraplegia=13, paraplegia=36; Severity of injury: complete=26, incomplete=23; Depression status=mild according to mean HADS-D. **Intervention**: Two different wards of SCI patients were given either Coping-oriented Supportive Programme (COSP) or attention control training for 1-1.5hr/session, 1x/wk for 8wk. COSP is a psychosocial intervention which is delivered by a registered nurse who has SCI training in both SCI wards, while attention control group were given brief education on personal care. Outcome measures were assessed at baseline, immediately post- intervention, 4wk follow-up, and 12wk follow-up.	1. Depressive symptoms and adaptive coping were significantly improved in intervention group (p=.001) compared with the control group at post intervention, but not at follow-ups. 2. Anxiety, maladaptive coping, and social and life satisfaction were improved in intervention group compared to the control group (p<.05) at post-intervention, 4wk follow-up, and 12wk follow-up. 3. Self-efficacy was improved in the intervention group compared with the control group at post-intervention (p=.001) and 4wk follow-up (p=.02).

	Outcome Measures: Brief-COPE scale, Moorong Self-efficacy Scale (MSES), Hospital anxiety and depression scale (HADS), Numerical rating scale for pain, Six-item social support questionnaire (SSQ6), Quality of life enjoyment and satisfaction questionnaire- short form (Q-LES-Q-SF).	
Li et al. (2019) Hong Kong RCT PEDro=4 Level 2 $N_{Initial}$=22 N_{Final}=20	**Population:** *Intervention group* (Coping oriented supportive program n=9): Mean age=41.67±11yr; Gender: males=100%; Mean time post injury=8.1±4.1mo; Level of injury: tetraplegia=4, paraplegia=5; Severity of injury: complete=5, incomplete=4; Depression status=very mild depression symptoms according to mean HADS-D *Control group* (Usual care group; n=11): Mean age=43±15.7yr; Gender: males=100%; Mean time post injury=8.2±4.1mo; Level of injury: tetraplegia=4, paraplegia=7; Severity of injury: complete=5, incomplete=6; Depression status=mild according to the HADS-D. **Intervention:** Two wards in a hospital were compared, where one received an intervention and the other one was used as a control group with conventional care. The intervention involved culturally	1. Within- group analyses showed an improvement in depression HADS-D scoring post intervention in the COSP group (p=.007), but not in the control group. However, the difference was not significant between groups (p=1.16). 2. There was no within and between group differences in the anxiety HADS scores at any time point (p>.5). 3. Between group comparison showed greater self-efficacy (p=.04), and life (p=.005) and social satisfaction (p=0.22) in the COSP group compared with the control group post intervention.

	sensitive psychosocial care program and Coping-Oriented Supportive Program (COSP), 1-1.5hr/session, 1x/wk for 8wk. Outcome measures were assessed at baseline and post intervention. **Outcome Measures:** Brief Coping Orientations to Problems Experienced Inventory, Moorong Self- Efficacy Scale, Hospital Anxiety and Depression Scale (HADS), Quality of Life Enjoyment and Satisfaction Questionnaire-Short Form, Six-Item Social Support Questionnaire.	
Acceptance and Commitment Therapy (ACT)		
Han et al. (2023) United States Pre-Post Level 4 NInitial=10 NFinal=10	**Population:** Mean age=51.2±9.5yr; Gender: males=2, females=8; Mean time post injury= 20.1±15.3yr; Level of injury: cervical=3, thoracic=6, lumbar=1; Severity of injury: not reported; Depression status=moderate as measured by DASS. **Intervention:** Participants received 8 individual sessions (1h per session) delivered by trained coaches through Zoom videoconferencing, involving 6x1/wk acceptance and commitment therapy (ACT) sessions and 2 psychoeducation sessions over a 1wk period. Outcome measures were assessed at baseline and post-intervention. **Outcome Measures:** Depression, Anxiety and Stress Scales (DASS-21), World Health Organization Quality of Life Instruments (WHOQOL-BREF), Spinal Cord Injury Quality of Life (SCI-QOL), Self- Compassion Scale- Short Form (SCS SF) Engagement in	1. Participants showed significant reductions in depression (p=.021), anxiety (p=.032) and stress (p=.036), measured by the DASS- 21. 2. SCI-QOL Grief showed significant reductions (p=.028), and significant increases in SCS-SF (p=.028). 3. EMAS scores improved significantly from pre- to post-intervention (p=.049) 4. The WHOQOL-BREF, SCI-QOL Resilience, MAAS, CFQ-7, AAQ-II

	Meaningful Activities Survey (EMAS), ACT process measures (Acceptance and Action Questionnaire-II (AAQ-II), Cognitive Fusion Questionnaire (CFQ-7), Mindful Attention Awareness Scale (MAAS), System Usability Scale (SUS)	measures showed no significant changes after the intervention.

Mindfulness based Therapy

Zanca et al. (2022) United States RCT Pedro=8 Level 1b NInitial=21 NFinal=19	**Population:** *Intervention group* (Clinical Meditation and Imagery; n=11): Mean age=50, 37-66yr (median, range); Gender: males=9, females=2; Mean time post injury=13, 1- 21yr (median, range); Level of injury: Tetraplegia=46%, Paraplegia=54%; Severity of injury: incomplete=64%, complete=27%, unknown=9%; Depression status=normal to moderate as assessed by the PHQ-9 *Control group* (Health and Function Education; n=10): Mean age=45, 27-72yr (median, range); Gender: males=7, females=3; Mean time post injury=6, 2-18yr (median, range); Level of injury: Tetraplegia 40%, Paraplegia=60%; Severity of injury: incomplete=40%, complete=20%, unknown=40%; Depression Status=mixed as assessed by the PHQ-9. **Intervention:** Participants were randomized to receive Clinical Meditation and Imagery (CMI) as intervention or Health and Function Education as control. CMI group participated in a 4wk in- person or virtual mindfulness, mantra meditation, and guided imagery practices in group setting (2hr/session, 1x/wk for 4wk), followed by 4wk of self-directed home-based CMI practice (30min/session, 5x/wk for 4wk). Control group participated in a 4wk in-person or virtual education on topics related to health and function after spinal cord injury in group	1. No statistically significant differences (p=>.05) in depressive or stress symptoms from baseline were noted between or within the groups. 2. Depressive symptoms showed a direction of change favourable to the clinical meditation and imagery group. 3. Stress symptoms showed a direction of change favourable to the control group.

	setting (2hr/session, 1x/wk for 4wk), followed by 4wk of self-directed, home- based education activities (30min/session, 5x/wk for 4wk). Outcomes measures were assessed at 2wk (baseline), 6wk, and 10wk. **Outcome Measures:** Multidimensional Pain Inventory Life Interference Subscale (MPI-LIS), Numeric Rating Scale (NRS), Survey of Pain Attitudes (SOPA), Perceived Stress Scale (PSS), Brief Patient Health Questionnaire (PHQ-9).	

Hearn and Finlay (2018) United Kingdom RCT PED ro=7 NInitial=67 NFinal=43	**Population:** Mean age=44.4±10.4 yr; Gender: males=31, females=36; Time since injury (yr): 1-2=11, 2-4=18, 4-8=19, 8-12=6, 12-15=7, 15+=6; Level of injury: C=25, T=37, L=5; Severity of injury: AIS A=9, B=17, C=19, D=22. **Intervention:** Participants were randomized to either an 8-wk online mindfulness intervention or an 8-wk internet delivered psychoeducation. **Outcome Measures:** Depression symptom severity and anxiety (hospital anxiety and depression scale (HADS)), quality of life (QoL)(world health organization quality of life (WHOQOL-BREF) , pain perception (numeric rating scale), pain catastrophizing scale (PCS) and mindfulness (five facet mindfulness questionnaire (FFMQ).	1. Significant differences post-intervention between groups for mindfulness facets of acting with awareness, describing and non- reactivity to inner experience ($p<0.05$) as well as total FFMQ score ($p<0.05$). 2. No significant differences between groups for any QoL, pain intensity and mindfulness facets of observing and non- judging post- intervention ($p>0.05$). 3. Significant between group difference in severity of depression and pain catastrophizing at 3- mo follow-up ($p<0.050$).