

Supplementary File 5: Observational treatment studies

Study	Sample	Intervention	Outcome measures	Timepoints
Aybek 2013 (Switzerland)	Mixed symptoms (n=23)	Integrated care (neurology/psychiatry) OR TAU	Self-report: SF-36, overall outcome, symptom severity, understanding of FND, employment, HCU	3 y
Barry 2008 (US)	Seizures (n=7)	Group psychotherapy	Self-report: seizure log, BDI, SCL-90	Baseline 16 w 32 w
Bullock 2015 (US)	Seizures (n=17)	Group dialectical behaviour therapy skills training (+ individual psychotherapy)	Self-report: DBT skills use diaries, seizure log	Start/end treatment
Conwill 2014 (UK)	Mixed symptoms (n=16)	CBT-based group psychotherapy	Clinician-rated: CGI-S, CGI-I Self-report: SF-36, HADS	Start/end treatment
Cope 2017 (UK)	Seizures (n=19)	CBT-based group psychoeducation	Self-report: seizure frequency / intensity, attitudes towards symptoms, ET-7, PHQ-9, GAD-7, WSAS, B-IPQ, patient satisfaction/perceptions of therapy	Pre- / post- treatment
Dalocchio 2010 (Italy)	Movement (n=16)	Physical activity (walking program)	Clinician-rated: PMDRS; HAM-D; VO2 Max; BMI Self-report: BAI	Pre- / post- treatment
De Barros 2018 (Brazil)	Seizures+epilepsy (n=47)	CBT-based group psychotherapy	Clinician-rated: HAM-D, HAM-A Self-report: SF-36, TAS, WoCQ	Pre- / post- treatment
Demartini 2014 (UK)	Mixed symptoms (n=66)	Specialist inpatient multidisciplinary rehabilitation	Clinician-rated: HoNoS, COPM Self-report: HADS, Fear Questionnaire, PHQ-15, IPQ-R, CGI-I (end treatment, 1 y), CNSQ	Start/end treatment 1 y
Demartini 2019b (Italy)	Motor (n=18)	Physical therapy telemedicine	Clinician-rated: PMDRS; HAM-D; HAM-A Self-report: TAS; SF-36; CGI-I	Start treatment 12 w 24 w
De Oliveira Santos 2014 (Brazil)	Seizures (n=37)	Psychoanalytic psychotherapy	Self-report: seizure frequency, cessation	Pre- / post- treatment
Duncan 2016 (UK)	Seizures (n=89)	Psychological therapy (clinical psychologist)	Self-report: seizure freedom (>2 m), HCU (primary/secondary care)	6 m 3 y

Espay 2014 (US)	Movement (n=10)	Tremor retraining	Clinician-rated: PMDRS	Pre- / post-treatment
Ferrara 2011 (US)	Movement (n=19)	Transcutaneous electrical nerve stimulation	Clinician-rated: PMDRS Self-report: symptom magnitude, persistence, disability (0-10 scale); adverse events	Baseline 4 m
Garcin 2013 (France)	Movement (n=24)	rTMS (motor cortex)	Clinician-rated: video rating scale Self-report: CGI-I	Pre- / post-treatment
Goldstein 2004 (UK)	Seizures (n=16)	CBT	Self-report: seizure frequency; WSAS; HADS; Fear Questionnaire; employment status; IPQ; MHLC; seizure-related beliefs	Pre-treatment End treatment 6 m
Hallett NCT03263013 (US)	Movement (n=8)	TMS/Intermittent theta-burst stimulation of dorsolateral prefrontal cortex	Feasibility/acceptability parameters	Baseline End treatment
Hinson 2006 (US)	Movement (n=9)	Psychodynamic psychotherapy	Clinician-rated: PMDRS, HAM-D, GAF, DSM-IV structured clinical interview Self-report: BAI	Baseline End treatment
Hovorka 2007 (Czech Republic)	Seizures (n=56)	Video-EEG confirmed diagnoses + AED withdrawal + psychiatry/psychology +/- pharmacotherapy	Self-report: seizure frequency	2 y
Insch NCT03857347 (UK)	Mixed symptoms (n=25)	Brief group psychoeducation	Self-report: SF-36	Baseline 2 w (pre-treatment) 4 w 3 m
Kienle 2018 (Germany)	Mixed symptoms (n=19); healthy controls (n=19)	Inpatient multidisciplinary treatment	Self-report: SDQ-20; symptom severity (0-10 Likert); SCL-90-R; TAS; ERQ Laboratory: EEG during emotion regulation	Start/end treatment
Kozłowska 2018 (Australia)	Seizures (n=60, paediatric)	Specialist inpatient programme (2 weeks)	Clinician-rated: GAF, educational functioning	Start/end treatment

Kuyk 2008 (Netherlands)	Seizures (n=22)	Specialist inpatient multidisciplinary rehabilitation	Clinician-rated: seizure frequency (start/end treatment) Self-report: seizure frequency, duration, control (6 m), SCL-90, BDI, STAI, UCL, SF-36, coping skills measure, DISQ	Start/end treatment 6 m
LaFrance 2009 (US)	Seizures (n=17)	CBT	Clinician-rated: OHS, GAF; LIFERIFT Self-report: seizure frequency; BDI-II; DTS; DES; BIS; FAD; SCL-90; WoCQ; QoLIE-3 I	Pre-treatment Fortnightly 4 m 8 m 12 m
Maa NCT01919307 (US)	Seizures (n=29)	Auricular acupuncture	Treatment completion; seizure diary completion; seizure frequency; adverse events	Baseline End treatment (12w) 16 w
Mayor 2010 (UK)	Seizures (n=47)	Brief augmented psychodynamic interpersonal therapy	Self-report: seizure frequency, HCU	12-61 m
Mayor 2013 (UK)	Seizures (n=13)	Brief manualised psychoeducation	Self-report: seizure frequency, SF-36, symptom attribution, FAI, HCU, medication, employment / educational status	Start/end treatment 3 m
Metin 2013	Seizures (n=13)	Group psychotherapy	Self-report: seizure log, BDI, DES, STAI, SF-36 Life Quality, TAS	Start / end therapy
Modirrousta NCT02796924 (US)	Seizures (n=15)	r-TMS of temporal-parietal junction	Self-report: seizure frequency	Pre/post treatment
Myers 2017 (US)	Seizures & PTSD (n=16)	Prolonged exposure therapy	Self-report: seizure frequency, BDI-II, PDS	Start/end therapy
Nielsen 2015 (UK)	Motor (n=47)	Specialist 5-day physiotherapy	Clinician-rated: Berg Balance Scale, 10-metre Walk Test Self-report: SF-36, EQ-5D-5L, HADS, WSAS, CGI-I	Start/end treatment 3 m
Perez NCT03731078 (US)	Motor (n=70)	CBT-informed physiotherapy	Clinician-rated: CGI-I; S-FMDRS; 10-metre walk; Five Times Sit-to-Stand test Self-report: SF-36; CGI-I; SOMS-CD; PHQ-15	Pre/post treatment

Pintor 2010 (Spain)	Seizures + anxiety/depression (n=19)	Venlafaxine	Clinician-rated: HAM-A; HAM-D Self-report: seizure frequency; HADS	Baseline 1, 2, 3, 4, 5 m
Reuber 2007	Mixed symptoms (n=64)	Brief psychodynamic interpersonal therapy	Self-report: CORE-OM, SF-36, PHQ-15	Start/end treatment 6 m
Tolchin 2018	Seizures (n=123)	Outpatient psychiatry	Clinician-rated: treatment adherence	1, 2.5, 4, 10 m
Vandenberg 2015 (US)	Movement (n=27)	Outpatient rehabilitation program	Clinician-rated: modified Gait Abnormality Rating Scale; walking speed	Start/end treatment
Voon & Lang 2005	Movement (n=23)	Antidepressant medication	Clinician-rated: MADRS, CGI-S, CGI-I Self-report: BAI, occupational/educational functioning	Baseline (start treatment) 3, 16 m
Williams 2018 (UK)	Mixed symptoms (n=44)	Brief augmented psychodynamic interpersonal therapy	Self-report: EPS-25, SF-36; PHQ-15, CORE-10, B-IPQ	Start/end treatment
Wiseman 2016 (UK)	Seizures (n=25)	Brief manualised psychoeducation	Self-report: seizure frequency, CORE-OM, IPQ, WSAS, NEWQoL-6D, ED-QoL, symptom attribution	Start/end treatment
Yu NCT03660098 (US)	Movement (n=14)	Mirror box therapy	Clinician-rated: S-FMDRS Self-report: symptom severity (0-4)	Pre/post mirror box procedure
Zaroff 2004 (US)	Seizures (n=7)	Group psychoeducation	Self-report: seizure frequency, CISS, STAXI-2, QOLIE-31	Pre- / post-treatment

Key: BAI = Beck Anxiety Inventory; BDI = Beck Depression Inventory; BIPQ = Brief Illness Perception Questionnaire; BIS = Barratt Impulsiveness Scale; CBT = cognitive behavioural therapy; CGI = Clinical Global Impression; CISS = Coping Inventory for Stressful Situations; CNSQ = Common Neurological Symptom Questionnaire; COPM = Canadian Occupational Performance Measure; CORE-OM = Clinical Outcomes in Routine Evaluation - Outcome Measure; DBT = dialectical behaviour therapy; DES = Dissociative Experiences Scale; DISQ = Dissociation Questionnaire; DTS = Davidson Trauma Scale; ED-QoL = EQ-5D; EEG=electroencephalography; EPS-25 = Emotional Processing Scale – 25; ERQ=Emotion Regulation Questionnaire; ET-7 = Revised Emotional Thermometer Scale; FAD = Family Assessment Device; FAI = Frenchay Activity Index; GAD-7 = Generalised Anxiety Disorder scale – 7; GAF = Global Assessment of Functioning; HADS = Hospital Anxiety & Depression Scale; HAM-A = Hamilton Rating Scale – Anxiety; HAM-D = Hamilton Rating Scale- Depression; HCU = healthcare utilisation; HoNoS = Health of the Nation Outcome Scale; IPQ = Illness Perception Questionnaire; LIFERIFT = Longitudinal Interval Follow-up Evaluation–Range of Impaired Functioning Tool; MADRS = Montgomery Asberg Depression Scale; MHLC = Multidimensional Health Locus of Control; NEWQoL-6D = epilepsy specific QoL measure; OHS = Oxford Handicapped Scale; PDS = Post-Traumatic Stress Diagnostic Scale; PHQ = Patient Health Questionnaire; PMDRS=Psychogenic Movement Disorder Rating Scale; QoLIE-31 = Quality of Life in Epilepsy Inventory-31; S-FMDRS=Simplified Functional Movement Disorder Rating Scale; SCL-90 = Symptom Checklist – 90; SDQ-20=Somatoform Dissociation Questionnaire – 20 item; SF-36 = Short Form Health Survey – 36; SOMS-CD=Screening for Somatic Symptoms Conversion Disorder subscale; STAI = State Trait Anxiety Inventory; STAXI-2 = State Trait Anger Expression Inventory – 2; TAS = Toronto Alexithymia Scale; TMS = transcranial magnetic stimulation; UCL = Utrecht Coping List; WoCQ = Ways of Coping Questionnaire; WSAS = Work & Social Adjustment Scale