

Table 2. Nonpharmacologic Interventions

	Author	Study	Intervention	Duration	Country	Setting	Diagnosis	Sample size (dropouts, N)	Mean age (SD)	Suicide Scale	Measure	Key findings	Risk of bias
Biological interventions	Benedetti et al ⁴⁸	Quasi-experimental study	Total sleep deprivation, light therapy, and lithium	1 wk	Italy	Inpatient (hospital unit)	Major depressive episode as part of BD	143 (2)	R+ 45.71 (11.90) NR+ 43.36 (8.61) R- 47.91 (10.97) NR- 47.61 (13.44)	HDRS-SI	Suicidal ideation	<ul style="list-style-type: none">Significant, rapid, and persistent improvement in suicidality soon after the first total sleep deprivation cycle.Larger improvement for responders with a positive suicide history after the first total sleep deprivation+ light therapy treatment.	High
	Sahlem et al ⁴⁹	Open-label pilot study	Total sleep deprivation, sleep phase advance, bright light therapy	4 d	US	Inpatient (Institute of Psychiatry)	Unipolar or bipolar depression	13 (3)	44 (16.4)	C-SSRS and SSI	Suicidal ideation and behavior	<ul style="list-style-type: none">Triple chronotherapy was safe and feasible.Significant drop in both clinician and self-rated scales of suicidal ideation.	High
	Lin et al ⁵⁰	Post hoc analysis of 2 open-label trials	Electroconvulsive therapy (ECT) Fluoxetine	2–3 times/wk with a max of 12 treatments Fixed dose of 20 mg/d for 6 wk	Taiwan	Inpatient (psychosomatic ward)	MDD receiving ECT or fluoxetine for acute treatment	130 (27) 131 (30)	46.5 (10.6) 45.6 (12.4)	HDRS-17 suicide item	Suicidal ideation	<ul style="list-style-type: none">Both ECT and fluoxetine significantly improved suicidality.Significantly higher rate of resolution of suicidal ideation in ECT compared to the fluoxetine group (83% vs 50%).Significantly shorter time to resolution of suicidal ideation in ECT compared to the fluoxetine group.Greater effect size for ECT groups in comparison to the fluoxetine group (Cohen d = 2.40 vs 1.23).Equal effectiveness of ECT and fluoxetine in preventing recurrence of suicidal ideation in the 12-wk follow-up period.	High
	Patel et al ⁵¹	Retrospective study	Electroconvulsive therapy (ECT) Matched controls	3 times/wk with a maximum of 10 treatments	US	Inpatient (civil psychiatric facility)	Seriously mentally ill (MI) including BD, MDD, and SCZ	30 30	32.9 (11.3) mentally ill 37.7 (8.1) mentally ill with substance abuse 33.1 (9.8) mentally ill 39.3 (9.2) mentally ill with substance abuse	BPRS suicide scale	Suicidal ideation	<ul style="list-style-type: none">Greater improvement in suicidality during a shorter period in the ECT group as compared to the control group.Most pronounced improvement in mentally ill with substance abuse. Note: baseline suicidality was higher in the ECT group	High
	George et al ⁵²	Pilot randomized trial	Repetitive transcranial magnetic stimulation (rTMS) Sham	3 sessions/d for 3 d (54,000 stimuli)	US	Inpatient (military hospital wards)	PTSD or TBI or both in addition to suicidality	20 (10) 21 (4)	38.7 (15) 46.1 (15.9)	BSS	Suicidal ideation	<ul style="list-style-type: none">rTMS treatment is safe and does not lead to a worsening of suicidality both acutely (over 3 d) and long-term (6-mo follow-up).Rapid antisuicidal effects.No significant different between groups.	Unclear
Cognitive and behavioral therapies	Zhang et al ⁵³	Open-label trial	Repetitive transcranial magnetic stimulation (rTMS)	5 sessions/wk for 2 wk	China	Inpatient (mental health center)	Acute depressive episodes and suicidal ideation	43 54	SI and resolved (n = 63), 43.6 (26.2) SI and unresolved (n = 34), 49.9 (25.1)	HDRS-suicidal-ideation	Suicidal ideation	<ul style="list-style-type: none">Add-on rTMS resulted in significant improvement in suicidal ideation.Pronounced suicide improvement and remission in adolescents treated with the HF left DLPFC rTMS protocol, compared with LF right DLPFC rTMS protocol (not observed in adults).More likelihood of achieving remission with HF left DLPFC rTMS protocol in adolescents as compared to adults.	High
	Jelinek et al ⁵⁴	Uncontrolled pilot study	Metacognitive training for depression (D-MCT)	4 wk	Germany	Inpatient (ward for affectiv disorders of the clinic for psychiatry)	Depression	58 (10 did not complete the 4-wk intervention, 2 lost to postassessment, 3 lost to 8-wk follow-up assessment)	41.15 (9.53)	BSS and HDRS-SI	Suicidal ideation	<ul style="list-style-type: none">Feasibility, safety, and acceptability of the D-MCTS modules addressing suicidality.BSS: 4-wk post assessment: Cohen d = 0.272; 8-wk follow-up: Cohen d = 0.258; 10–11–12 = P = .068, n2partial = 0.059HDRS item 3: 4-wk post assessment: Cohen d = 0.488; 8-wk follow-up: Cohen d = 0.45; 10–11–12 = P < .001, n2partial = 0.146	High
	Probst et al ⁵⁵	Diary card study	Dialectical behavior therapy (DBT)	Weekly for 5 wk	Germany	Inpatient (unit for psychiat crisis intervention)	BPD	44	30.16 (9.39)	Suicidal ideation rating on the diary card Skill use rating on the diary	Suicidal ideation	<ul style="list-style-type: none">Significant improvement in suicidal ideation in individuals that had higher. Percentage of days with successful skill use.Lower suicidal ideation on days with successful skill use relative to unsuccessful skill use and no skill use.Higher suicidal ideation on days with unsuccessful skill use compared to days with no skill use.	High
	Davidson et al ⁵⁶	Pilot RCT	Manual-assisted cognitive therapy (MACT)	6 sessions	United Kingdom	Inpatient (psychiatry serviv in hospital)	Personality disorder with and without substance misuse admitted after an episode of self-harm	14 (3) 6 (2)	NA	BSS	Suicidal ideation	<ul style="list-style-type: none">Significant improvement in suicidal ideation in MACT compared to TAU at 3-mo follow-up.	Low
	Diefenbach et al ⁵⁷	Open-label trial	Brief cognitive-behavioral therapy for suicidal inpatients (BCBT-I)	3–7 sessions within 10–24 d	US	Inpatient (psychiatric unit + medical floor)	Suicide attempts within 1 wk of admission, mostly mood disorders	6 (2)	33.5	C-SSRS	Suicidal ideation and behavior	<ul style="list-style-type: none">Acceptability and feasibility of BCBT-I.Significant and large improvements in suicidality (Cohen d = 0.97).	High
Psychodynamic and mentalization-based therapies	Tanier et al ⁵⁸	Longitudinal follow-up comparative study	Cognitive-behavior therapy for psychosis (CBTp) Supportive counseling (SC) Treatment as usual (TAU)	15–20 h treatment envelope within a 5-wk postadmission period, plus “booster” sessions at a further 2 wk, and 1, 2, and 3 mo.	United Kingdom	Inpatient or day patient ur for treatment of psychosis	Schizophrenia or delusional disorder	Data were available for 278 participants (90.0%) at baseline; 210 (68.0%) at 6 wk; 195 (63.1%) at 3 mo; and 218 (70.6%) at 18 mo	Overall Low self-harm score (n = 242): 29.7 (10.6) High self-harm score (n = 38): 28.6 (6.4)	HoNOS nonaccidental self-injury	Self-injury	<ul style="list-style-type: none">Significant reduction in HoNOS suicide behavior scores from baseline.No significant differences between CBTp, TAU, and SC in suicidal ideation at 6-wk, 3-mo, or 18-mo follow-up.	Unclear
	Haddock et al ⁵⁹	Pilot RCT	Cognitive-behavioral suicidal prevention therapy (CBSP) + TAU TAU	20 1-hr sessions over 60 mo	United Kingdom	Inpatients (acute psychiatr ward)	Suicidal thoughts or behaviors within the 3 mo prior to admission	24 (6) 27 (8)	33.88 (12.18) 37.04 (12.41)	BSS SPS ideation and suicide risk	Suicidal ideation and behavior; suicide risk	<ul style="list-style-type: none">Successful implementation of CBSP in acute inpatient setting.BSS: NA SPS ideation, effect size = 0.17 SPS suicide risk, effect size = 0.37At 6 mo BSS: NA SPS ideation, effect size = 0.27 SPS suicide risk, effect size = −0.18	High
	LaCroix et al ⁶⁰	Pilot RCT	Post-admission cognitive therapy (PACT) + EUC EUC	Six 60- to 90-min individual CBT sessions over 3 d	US	Inpatient (psychiatric inpatient unit)	Recent suicide attempt and ASD or PTSD; military service members and adult beneficiaries	18 (8 at 3-mo) 18 (6 at 3-mo)	28.9 (8.6) 33.0 (10.8)	SSI-W	Suicidal ideation	<ul style="list-style-type: none">No statistically significant between-group difference in reattempt suicide or suicide ideation during 3-mo follow-up.Month 1, Cohen d = −0.97 Month 2, Cohen d = 0.23 Month 3, Cohen d = −0.26	High
	Ghahramanlou-Holloway et al ⁶¹	Pilot RCT	Post-admission cognitive therapy (PACT) + EUC EUC	Six 60- to 90-min individual CBT sessions over 3 d	US	Inpatient (psychiatric inpatient unit)	Recent suicide attempt or suicide ideation with a history of a prior suicide attempt (65% with multiple attempts; 67% with MDD); military service members and adult beneficiaries	12 (2 at 3-mo) 12 (6 at 3-mo)	30.3 (11.4) 27.8 (9.3)	SSI-W	Suicidal ideation	<ul style="list-style-type: none">No statistically significant between-group difference in reattempt suicide or suicide ideation during 3-mo follow-up.Month 1: Cohen d = 0.19, P = .633 Month 2: Cohen d = 0.54, P = .233 Month 3: Cohen d = −0.06, P = .992	High
	Cha et al ⁶² (experiment 2)	RCT	Attention bias modification (ABM) Controls	4 sessions of a 20-min computer-based task	US	Inpatient (psychiatric inpatient unit)	Suicidal ideation or attempt	Overall, 37 (7)	41.5 (15.1) 45.9 (14.6)	SSI	Suicidal ideation	<ul style="list-style-type: none">No significant between-group differences in reducing suicidality (Cohen d's = 0.04–0.09).Equal likelihood of experiencing suicidal ideation for the groups at 2-mo follow-up.	Low
Trauma-focused and specialized interventions	Bentley et al ⁶³	Proof of concept study (RCT)	Unified protocol (UP) + TAU TAU	Daily, 4 d	US	Inpatient (hospital unit)	Suicide attempt or experiencing active suicidal ideation within the past 2 wk. Heterogenous diagnosis, with most common diagnosis of depression and polysubstance abuse.	6 (1) 6 (1)	Overall: 44 (11.73)	BSS	Suicidal ideation	<ul style="list-style-type: none">Acceptability and feasibility of UP implementation.No between-group differences in suicidal thoughts or behaviors during a 6-mo follow-up.	Unclear
	Bentley et al ⁶⁴	Quasi-experimental study	Unified protocol (UP)	Daily, 7-d schedule allowing patients to receive all modules in the first 2 d on the unit	US	Inpatient (hospital unit)	Suicidal thoughts and behaviors and affective disorders	Pre-UP (n = 133) post-UP (n = 61)	34.1 (13.6)	PHQ-9 suicide item	Suicidal ideation	<ul style="list-style-type: none">Acceptability of UP implementation.Improvements in suicidality were not significantly different between pre and post-UP implementation (Hedges's g at discharge between pre- and post-UP = 0.05).	High
	Herrmann et al ⁶⁵	RCT	Mindfulness-based intervention (MB-SI) Treatment as usual (TAU)	Four 45-min individual session, each per day, over 12 subsequent days	US	Inpatient (psychiatric unit)	Veterans with increased suicide risk	20 (8) 13 (5)	Overall, 39.5 (9.52)	C-SSRS	Suicidal ideation and behavior	<ul style="list-style-type: none">No between-group differences in reduction of suicidality at 1-mo follow-up.Feasibility of MB-SI in an inpatient psychiatric unit.	Unclear
	Vaslamatzis et al ⁶⁶	Naturalistic empirical study (observational)	Specialized inpatient psychotherapeutic program (SIPP)	100 d	Greece	Inpatient (psychiatric university hospital)	Severe personality disorder	43 (10)	26.3 (5.6)	Suicide Risk Scale	Risk for suicidality, aggressivity, and impulsivity	<ul style="list-style-type: none">Significant improvement in suicidality for all participants.Significant reduction in suicidality in multimodal psychodynamic psychotherapy plus pharmacotherapy group, but not in multimodal psychodynamic psychotherapy only group.	High
	Fowler et al ⁶⁷	Naturalistic longitudinal study	Extended inpatient treatment including mentalization-based therapies for adults with borderline personality disorder reference	8 wk	US	Inpatient (psychiatric hospital)	BPD	245 220	28.5 (11.0) 32.7 (13.5)	C-SSRS	Suicidal ideation and behavior	<ul style="list-style-type: none">Large size improvement in suicidality in BDP patients and their references (BPD, Cohen d = 1.19; reference, Cohen d = 0.81) during extended hospitalization.	High
Motivational and brief interventions	Ross and Holley ⁶⁸	Uncontrolled naturalistic study	Trauma model therapy	35 h a wk of group therapy and 3 h a wk of individual therapy while in the inpatient program 30 h a wk of group therapy and 2 h of individual therapy in the partial hospitalization program	US	Inpatient (psychiatric hospital)	Complex dissociative disorders and depression	60 (14)	36.1 (range 20–52)	BSS	Suicidal ideation	<ul style="list-style-type: none">Significant difference between the admission scores as compared to the discharge and 3-mo follow-up admission vs discharge, Cohen d = 1.12 Admission vs 3 mo, Cohen d = 1.04 Discharge vs 3-mo, Cohen d = 0.03	High
	Menefee et al ⁶⁹	Naturalistic study	Environment of recovery programs (ROVER/ WISER) including evidence-based treatments (EBTs) for PTSD	30 d (5–7 h of therapy per weekday and a minimum of 2 h per day on the weekends)	US	Inpatient (acute hospital setting)	Veterans who voluntarily sought admission to an inpatient, acute psychiatric setting in a southern VA medical center	559 (282 men; 277 women) discontinuation: 92 (71 men and 21 women)	Male: 30.8 (6.7) Female: 41.9 (10.4) Total: 36.3 (10.4)	BSS	Suicidal ideation	<ul style="list-style-type: none">Significant improvement in suicidality (Cohen d = 1.13).	High
	Britton et al ⁷⁰	Open-label trial	Motivational interviewing to address suicidal ideation (MI-SI)	2 sessions spaced over 3 days	USUS	Inpatient (acute psychiatric unit)	Suicidal ideation (veterans)	13 (4 posttreatment, 2 in follow-up)	46.77 (10.49)	SSI	Suicidal ideation	<ul style="list-style-type: none">Acceptability of MI-SI interventionImmediate and long-term reduction in severity of suicidal ideation with large effect size (Cohen d's = 1.36–3.39 posttreatment; 1.66–1.95 at 2-mo follow-up)	High
	Britton et al ⁷¹	RCT	Motivational interviewing to address suicidal ideation (MI-SI) Revised MI-SI (MI-SI-R) Treatment as usual (TAU)	2 sessions spaced over 2 d	US	Inpatient (acute psychiatric unit)	Suicidal ideation (veterans)	33 (9 at 1-mo, 10 at 3-mo, 12 at 6-mo) 43.91 (12.69) 43.91 (12.44) 33 (5 at 1-mo, 7 at 3-mo, 6 at 6-mo) 46.03 (12.77) 66 (10 at 1-mo, 11 at 3-mo, 14 at 6-mo)	46.61 (12.69) 43.91 (12.44) 46.03 (12.77)	SSI and suicide attempts	Suicidal ideation and suicide attempts	<ul style="list-style-type: none">Reduction in the presence and severity of suicide was not different between groups over 6-mo follow-up.MI-SI, odds ratio (95% CI) 0.60 (0.26, 1.40); MI-SI-R, odds ratio: 0.95% CI) 0.58 (0.28, 1.24); combined MI-SI conditions, odds ratio (95% CI) 0.59 (0.31, 1.12).	Unclear
	Ducasse et al ⁷²	RCT	Gratitude diary Food diary	Daily for 7 d	France	Inpatient (department of psychiatric emergency and acute care in the academic hospital)	Recent suicidal ideation or attempts	101 (1) 100 (2)	41.58 (12.97) 42.55 (11.82)	Severity and intensity C-SSRS SSI	Suicidal ideation and behavior	<ul style="list-style-type: none">No significant efficacy of 7-d gratitude journal to reduce suicidal ideation as compared to the controlC-SSRS, Cohen d = 0.20; SSI, Cohen d = 0.22.	High
Comprehensive care approaches (integrative, collaborative, and peer support)	O'Connor et al ⁷³	RCT	Volitional help sheet (VHS) + TAU TAU	6 mo	United Kingdom	Inpatient (emergency department)	Recent suicide attempts	259 (5) 259 (1)	36.5 (14.59) 36.07 (12.77)	The number of participants who re-presented with self-harm during the 6-mo follow-up period; the number of times a participant re-presented at the hospital with any self-harm during the 6-mo follow-up period	Repetition of self-harm	<ul style="list-style-type: none">No significant between-group difference in the number of participants who re-presented with self-harm after 6-mo follow-up.No significant between-group difference in the self-harm representations per patient after 6-mo follow-up.	Low
	Pfeiffer et al ⁷⁴	Pilot RCT	Peer specialist intervention (PREVAIL) + usual care Usual care	12 wk	US	Inpatient psychiatry unit	Suicidal ideation or attempts (various diagnosis)	34 (10 by 3-mo and at 6-mo) 36 (5 by 3-mo and 7 by 6-mo)	Overall, 34 (14)	Suicide ideation (Beck Scale)	Suicidal ideation	<ul style="list-style-type: none">Acceptability and feasibility of the PREVAIL intervention.No reports on within or between-group difference due to limited power.	Unclear
	Engstrom et al ⁷⁶	Secondary analysis of a cluster randomized trial ⁷⁶	Collaborative care intervention Usual care	12 mo	US	Inpatient (25-level I trauma centers)	Injury survivors (some with PTSD and suicidal ideation at baseline)	265 370	37.6 (13.4) 39.9 (14.8)	PHQ-9 suicide item	Suicidal ideation	<ul style="list-style-type: none">Feasibility of suicidal assessment and monitoring in pragmatic clinical trials.No significant difference in improvement of suicidality in intervention relative to the control during the 12-mo follow-up.	High
	Jun et al ⁷⁷	Quasi-experimental study	Suicide prevention program Routine hospital treatments	two 60-min sessions per wk over 4 wk (8 sessions total)	South Korea	Inpatient (psychiatric unit in a university hospital)	Mental disorder (SCZ, MDD, BD, anxiety disorders, alcohol use disorder) receiving treatment in the psychiatric unit	25 (3) 25 (2)	46.45 (15.02) 43.52 (16.24)	BSS	Suicidal ideation	<ul style="list-style-type: none">Significant improvement in suicidal ideation compared to the control.	High
	Ellis et al ⁷⁸	Open-label pilot study	Collaborative assessment and management of suicidality (CAMS)	4–24 50-min sessions Mean length of stay: 51.4 d	US	Inpatient (psychiatric hospital)	Recent history of suicidal ideation/ behavior, mostly primary mood disorders (depression, BD-I, and BD-II) but also PTSD, anxiety disorder NOS, PD, and bulimia nervosa	24 (4)	36.90 (11.06)	BSS and SCS	Suicidal ideation	<ul style="list-style-type: none">Significant decreases in suicidal ideation and suicidal cognition.Support for the feasibility of implementing a structured, suicide-specific intervention for at-risk patients in inpatient settings.	High
	Ellis et al ⁷⁹	Naturalistic, controlled-comparison trial	Collaborative assessment and management of suicidality (CAMS) Treatment as usual (TAU)	10–29 50-min sessions Mean length of stay: 58.8 d	US	Inpatient (psychiatric hospital)	Suicidality (ideation or attempts) within weeks of admission (prominently mood disorders, anxiety disorders, substance-related disorders, and personality disorders)	26 26	32.42 (14.19) 33.31 (13.19)	BSS and SCS	Suicidal ideation; suicide risk by measuring a range of suicidogenic cognitions	<ul style="list-style-type: none">Greater and faster improvement in suicidal ideation and suicidal cognition in CAMS compared to TAU.	High
	Ellis et al ⁸⁰	Naturalistic, controlled comparison trial	Collaborative assessment and management of suicidality (CAMS) Treatment as usual (TAU)	6–30 50-min sessions Mean length of stay: 59.5 d	US	Inpatient (psychiatric hospital)	Suicidality (ideation or attempts) within 2 mo prior to admission, prominently mood disorders and personality disorders	52 (24 at 2-wk, 27 at 12-wk, 34 at 24-wk follow-ups) 52 (29 at 2-wk, 35 at 12-wk, 35 at 24-wk follow-ups)	31.44 (13.91) 32.92 (14.56)	BSS, SCS, and C-SSRS	Suicidal ideation; suicide risk by measuring a range of suicidogenic cognitions; suicidal ideation and behavior	<ul style="list-style-type: none">Significant improvement in suicidal ideation in all patients at discharge and 6-mo follow-upSignificant differences between CAMS and TAU at discharge but not at 6-mo follow-up.	High
	O'Connor et al ⁸¹	RCT	The teachable moment brief intervention (TMBI) + usual care Usual care	Single session of 30–60 min	US	Inpatient (medical/surgical floor) of a level 1 trauma center	Recent suicide attempt survivors	15 (4) 15 (2)	43.67 (13.13) 39.02 (14.43)	SSI, motivation to change, reasons for living	Suicidal ideation, motivation to change, reasons for living	<ul style="list-style-type: none">TMBI intervention was feasible and acceptable.No significant between-group differences in suicidal ideation at 1-mo follow-up.Significant improvements in motivation to address their problems in the TMBI group compared to usual care at 1-mo follow-up (β = 9.02).Significant improvements on reasons for living improvements in the TMBI group compared to the usual care group 1-mo follow-up (β = 29.60).No statistically significant differences between groups on reported reasons for living.	High
	O'Connor et al ⁸²	Pilot RCT	Teachable moment brief intervention (TMBI) + usual care Usual care	Single session of 30–60 min	US	Medical/surgical floor or inpatient psychiatry unit	Recent suicide attempt survivors	23 (4 at 1-mo interview, 7 at 3-mo interview, 10 at 12-mo interview) 25 (10 at 1-mo interview 13 at 3-mo interview 15 at 12-mo interview)	43.26 (2.48) 41.96 (2.70)	BSS, motivation to change, reasons for living	Suicidal ideation, motivation to change, reasons for living	<ul style="list-style-type: none">Acceptability and feasibility of TMBI interventionNo significant between-group differences in suicidal ideation at 12-mo follow-up.No significant improvements in motivation to address their problems in the TMBI group compared to usual care at 12-mo follow-up (β = −0.40)No significant improvements on reasons for living improvements in the TMBI group compared to the usual care group 12-mo follow-up (β = −2.23).	Unclear
	Bahlmann et al ⁸³	Open-label pilot study	Relapse prevention intervention after suicide event (RISE)	Five 60-min sessions delivered over 2 to 3 times per week over 2–3 wk	Germany	Inpatient (hospital)	Recent suicide attempters (MDD, ASD, OCD, alcohol dependence)	27 (20)	35.6 (14.2)	BSS	Suicidal ideation	<ul style="list-style-type: none">Significant reduction in suicidal ideation after RISE intervention compared to baseline (effect size = 0.75)No significant changes between sessions in the intensity of suicidal ideation or in the intent to act on suicidal ideation89% had no suicide re-attempts at 6-mo follow-up.Acceptability of RISE.	High

Abbreviations: ASD = acute stress disorder; BD = bipolar disorder; BPD = borderline personality disorder; BPRS = Brief Psychiatric Rating Scale; BSS = Beck Scale for Suicid EUC = enhanced usual care; HDRS = Hamilton Depression Rating Score; HDRS-SI = Hamilton Depression Rating Scale Suicide Item 3; HF = high frequency; HoNOS = Health with negative history of attempted suicide; OCD = obsessive compulsive disorder; PHQ-9 = Patient Health Questionnaire-9; PTSD = posttraumatic stress disorder; SPS = Suicide Probability Scale; SSI = Scale/Severity of Suicidal Ideation; SSI-W = Scale for Suicide Ideation, Worst Time Point; TAU = treatment as usual; TBI = traumatic

Ideation; C-SSRS = Columbia-Suicide Severity Rating Scale; DLPFC = dorsolateral prefrontal cortex; DSI-SS = Depressive symptom Inventory Suicidality Subscale; of the Nation Outcome Scales; LF = low frequency; MDD = major depressive disorder; NR+ = nonresponders with positive history of attempted suicide; NR- = nonresponders R+ = responders with positive history of attempted suicide; R- = responders with negative history of attempted suicide; SCS = Suicide Cognition Scale; SCZ = schizophrenia; brain injury.