Unlocking Cognitive Clarity: A Pilot RCT on Integrative Electroacupuncture for Depressive Patients with Cognitive Complain

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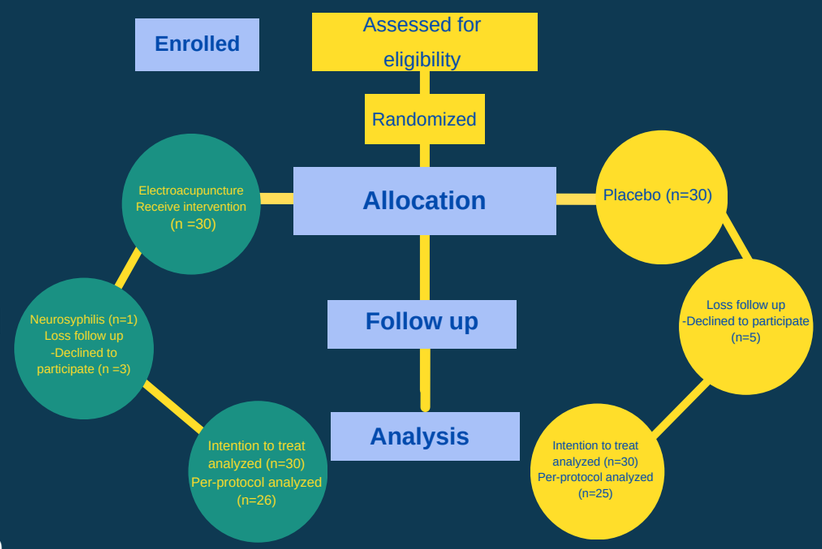
Objective:

To evaluate the impact of electroacupuncture on cognitive function, quality of life (QoL), and depression severity in patients with major depressive disorder (MDD)

Methods:

In this double-blinded randomized controlled trial, 60 participants (aged 18-55) with MDD-related cognitive symptoms were enrolled at Thammasat University Hospital. Participants were split into two groups: electroacupuncture with standard antidepressant treatment (EG; n=30) and standard antidepressant treatment with placebo acupuncture(CG; n=30). Assessments included executive functions(Trail making test B,Stroop test), Adas-cog delayed recall memory , subjective cognitive complaints, QoL (WHODAS 2.0), and depressive symptoms (PHQ-9) at baseline and after 10 weeks. Mann-Whitney U test was used to analyze treatment effects.

Consort flow diagram

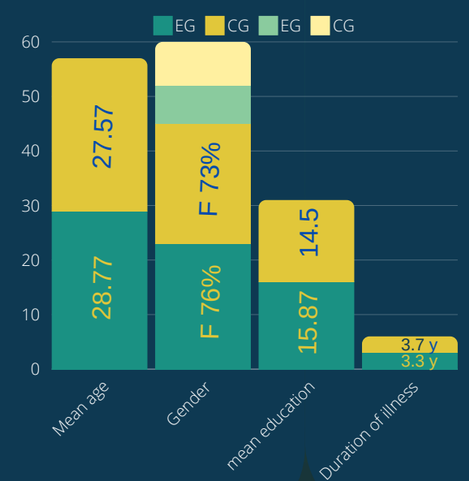


Outcomes	Δ median		Mann-Whitney U test	P-value
	EG (n=30)	CG (n=30)		
Main outcome				
Executive function:				
ΔTrail making test B T10-T1	-15.00	-21.50	410.00	0.553
ΔStroop word test T10-T1	8.00	3.00	366.50	0.216
ΔStroop color test T10-T1	8.50	0.50	826.50	0.184
ΔStroop word and color test T10-T1	4.00	1.50	326.00	0.064
Memory				
ΔADAS-cog delay recall memory T10-T1	1.50	1.00	403.50	0.476
Subjective cognitive complaint				
ΔWHODAS 2.0 D1.1-1.6 T10-T1	-5.50	0.00	318.00	0.049
ΔWHODAS 2.0 H1 T10-T1	-5.50	-2	354.50	0.154
ΔWHODAS 2.0 H2 T10-T1	0.00	-2	435.50	0.828
Secondary outcome: depression				
ΔPHQ-9 T10-T1	-1	-1	331.00	0.077

Notes: T1 = baseline (Week 1), T10 = Week 10
Scoring for the Trail Making B Test, WHODAS 2.0 (D1.1-1.6 and H1-H3), and PHQ-9 uses reversal scoring, where lower scores indicate better performance.
PHQ-9: Nine-item Patient Health Questionnaire for depression, Thai version.

Result:

Both groups had similar demographics and cognitive traits, with cognitive improvements observed in both. The EG showed significantly higher median scores for subjective cognitive complaints compared to the CG (EG: Median = 5.5, CG: Median = 0.0, p=0.049). No serious side effects were reported from either treatment.



Demographic data

Conclusion:

Electroacupuncture improved subjective cognitive complaints in MDD patients but did not affect specific cognitive functions, Qol or depressive symptoms. This suggests potential for further research into electroacupuncture for MDD with cognitive symptoms.

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