

Title: A randomized wait-list control trial evaluating the effectiveness of team-based chiropractic applied clinical neuroscience care on self-reported depression and cognition for medication-resistant depression: pilot study

Stephanie G. B. Sullivan, DC, PhD; Michael Longyear, DC, DACNB, CCSP, Co-PI; Dominic Fetterly, DC, DACNB; Emily Drake, MS; Mitchell Ferguson, MS, EdD; Dylan Saulsbery, DC, DIBCN, DIBE

Objective: Evaluate study implementation and treatment effectiveness of a team-based chiropractic applied clinical neuroscience (ACN) approach for individuals with medication-resistant depression.

Methods: Individuals with medication-resistant depression were randomized to immediate treatment (IT) or wait-list control (WL) groups, each receiving 6 weeks of ACN care. Monthly, ACN clinicians met with a multidisciplinary advisory team. Primary outcomes were the Depression, Anxiety, and Stress Scale (DASS-42), Oxford Happiness Questionnaire (OHQ), and event-related electroencephalography (P300), administered at weeks 0, 6, 12, and 18.

Results: Twelve of twenty-one (57%) participants (10F,2M; average age 38) completed the study; no adverse events were reported. Mean DASS-42 and OHQ scores improved over time in both groups. Following treatment, IT demonstrated an average improvement in depression scores (DASS-42) from severe to moderate (27.2 ± 12.9 to 18.2 ± 5.9) while WL improved from moderate to mild (17.3 ± 10.5 to 11.3 ± 10.4). Eight baseline and 6-week datasets met P300 data quality standards. IT ($n=4$) demonstrated decreased latency (6 milliseconds) and amplitude (0.93 microvolts) for P300. WL P300 ($n=4$) demonstrated decreased latency (110 milliseconds) and increased amplitude (0.33 microvolts).

Conclusion: Although future studies should address recruitment and data quality challenges, participants demonstrated self-reported improvement and P300 changes following ACN care.

Abstract published in the Journal of Chiropractic Education (2024) 38 (1):60-81.

<https://meridian.allenpress.com/jce/article/38/1/60/499269/Association-of-Chiropractic-Colleges-Educational>