

CONSORT Flow Diagram

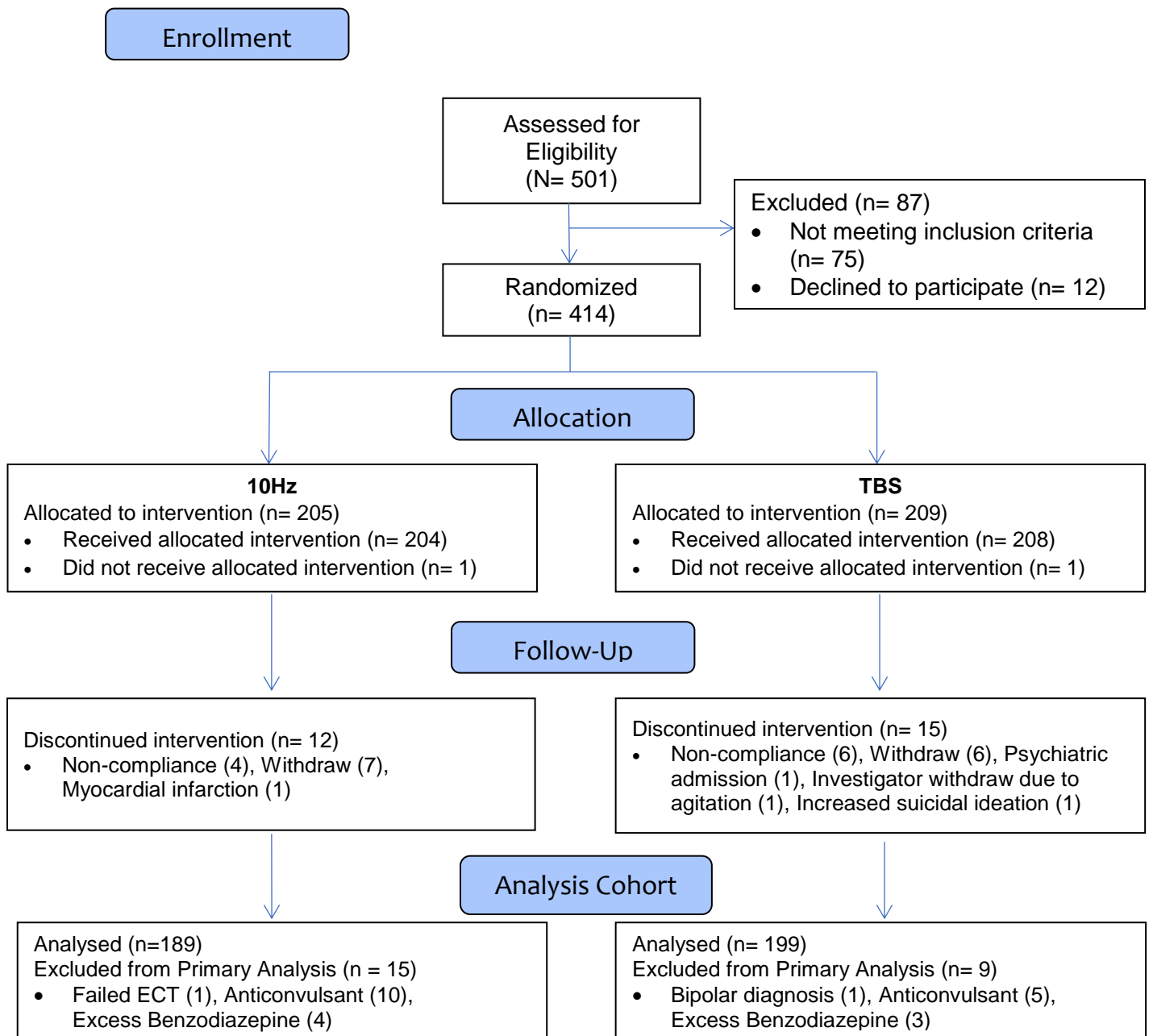


TABLE S1. Group trajectories comparing included (n=388) and excluded participants who violated inclusion criteria (n=24)

Response Trajectory	Included participant (n=388)	Excluded participant (n=24)
Rapid Response	75 (19.3%)	5 (20.8%)
Lower baseline symptoms, linear response	160 (41.2%)	5 (20.8%)
Higher baseline symptoms, linear response	113 (29.1%)	4 (16.7%)
Nonresponse	40 (10.3%)	10 (42%)

Note that response trajectory membership is slightly different for included participants due to impact of the excluded participants on the PROC TRAJ procedure.

TABLE S2. Characteristics associated with depressive symptom trajectories with benzodiazepine dose as continuous measure

Characteristic	Rapid Response (n=73) OR (95% CI)	Lower baseline symptoms, linear response (n=154) OR (95% CI)	Higher baseline symptoms, linear response (n=118) OR (95% CI)	Non-response (n=43) OR (95% CI)
Selected Covariates				
Age	1.04 (1.01-1.07)	1.00 (Reference)	1.00 (0.98-1.03)	0.98 (0.94-1.01)
Benzodiazepine Use ^a	0.60 (0.33-1.09)	1.00 (Reference)	1.05 (0.72-1.53)	1.43 (0.91-2.25)
Baseline HAM-D	0.90 (0.80-1.01)	1.00 (Reference)	1.30 (1.19-1.42)	1.31 (1.17-1.47)
Baseline QIDS-SR	0.79 (0.71-0.88)	1.00 (Reference)	1.02 (0.93-1.12)	1.20 (1.05-1.38)
A priori covariate				
TBS rTMS ^b	1.05 (0.55-2.03)	1.00 (Reference)	1.28 (0.71-2.30)	1.77 (0.78-4.02)

Abbreviations: HAM-D = 17-item Hamilton Depression Rating Scale, TBS = Theta burst stimulation, rTMS = Repetitive transcranial magnetic stimulation, QIDS-SR = Quick Inventory of Depressive Symptomatology, Self-Report, OR = Odds ratio, CI = Confidence interval.

Note: Bolded value indicates statistical significance at p<0.05

^a Benzodiazepine use is included in the model as a continuous covariate with all daily benzodiazepine doses converted to lorazepam equivalents

^b Reference is high frequency left stimulation technique

FIGURE S1 A. Three distinct trajectories of depressive symptom changes over six weeks of repetitive transcranial magnetic stimulation treatment for the high-frequency left stimulation group (n=189). Note that trajectories were determined using 4 week data, we extended participant depressive symptom data to week 6 for descriptive purposes as the number of trajectories identified using week 4 and week 6 data was identical (three) with good inter-rater agreement ($\kappa=0.83$). (HAM-D = Hamilton Depression Rating Scale, 17-Item).

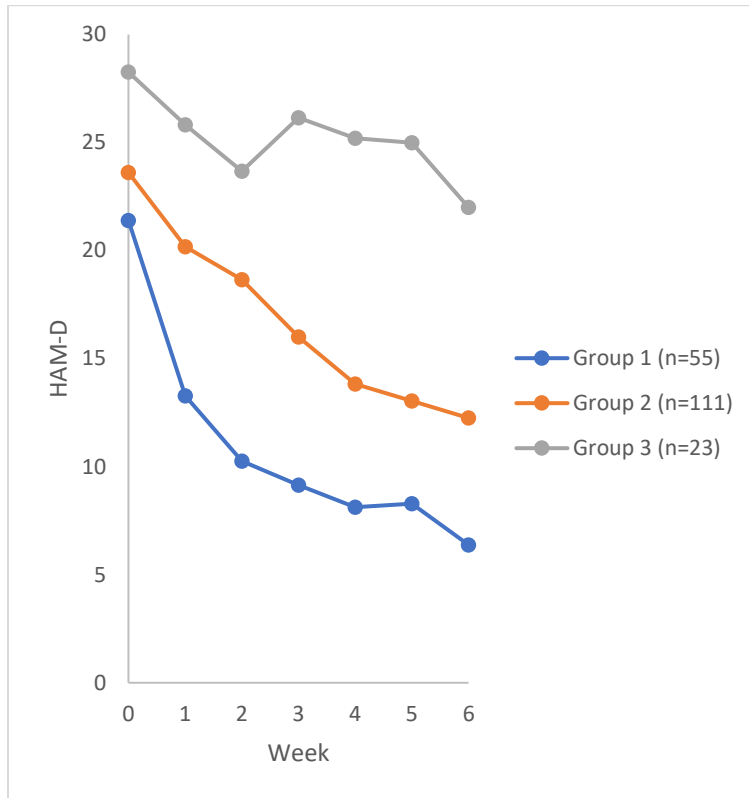


Figure S1 B. Three distinct trajectories of depressive symptom changes over six weeks of repetitive transcranial magnetic stimulation treatment for the intermittent theta burst group (n=199). Note that the optimal number of trajectories for week 4 data was three, while for week 6 data was four. We calculated the inter-rater agreement between week 4 and week 6 data assuming three response trajectories and found good inter-rater agreement ($\kappa=0.82$). Therefore, we extended participant depressive symptom data to week 6 for descriptive purposes. (HAM-D = Hamilton Depression Rating Scale, 17-Item).

