

Power calculation and inclusion total renewed in 2024

For the power calculation, we used a 2:1 allocation ratio (active vs. sham rTMS, respectively) and an ANCOVA-type Linear Mixed Model with discrete indicators for the baseline, direct post-treatment and two follow-up measurements as the basis for the primary analysis. We assumed a within-subject correlation of $r = 0.59$ across all measurements and a wave-to-wave drop-out of 5%, resulting in an overall drop-out rate of 14.3%, with $\alpha = 0.05$.

The original power calculation indicated that 166 participants were required, based on an expected mean effect size of $d = 0.33$ across the three post-treatment and follow-up measurements, derived from meta-analytic evidence available at that time (Nguyen et al 2021). In 2024, Hsu et al. updated the meta-analytic estimate to $d = 0.40$ for LF-rTMS, which was subsequently confirmed by Ventura et al., 2025. Using this updated effect size, and keeping all other assumptions constant, the revised required sample size was $n = 108$. With zero drop-out, the resulting power would be 0.89; with 5% wave-to-wave drop-out (14.3% total), the power would be 0.84.

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Hsu, C. W., Chou, P. H., Brunoni, A. R., Hung, K. C., Tseng, P. T., Liang, C. S., ... & Li, C. T. (2024). Comparing different non-invasive brain stimulation interventions for bipolar depression treatment: A network meta-analysis of randomized controlled trials. *Neuroscience & Biobehavioral Reviews*, 156, 105483.

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