

Evaluating the Data of Patient Scales (PHQ-9, BDI, GAD-7) from the Lehigh Valley Health Network Transcranial Magnetic Stimulation (TMS) Program

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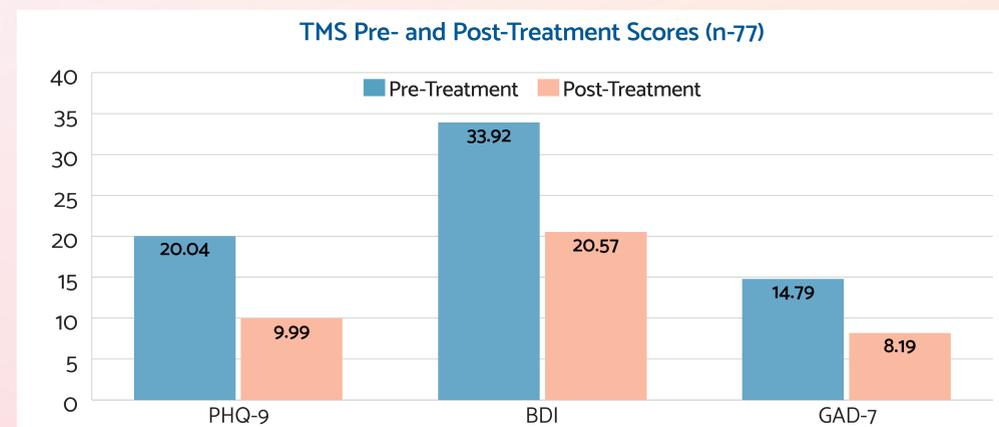
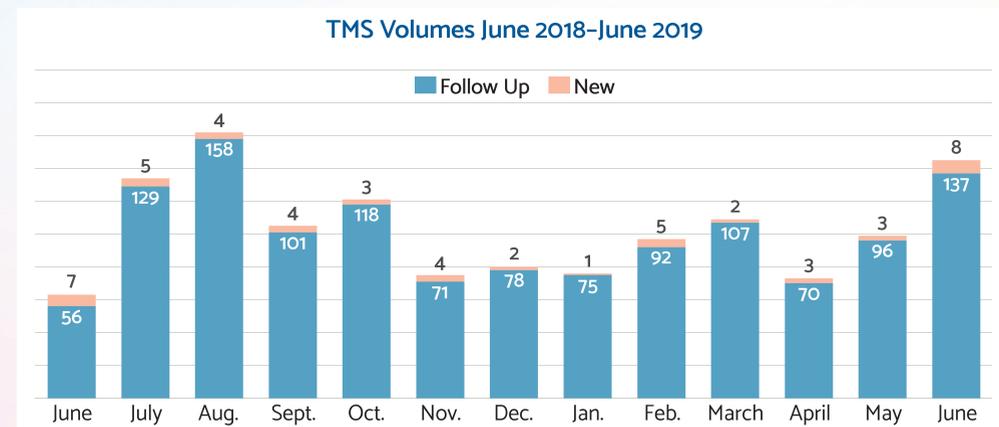
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Background

Transcranial Magnetic Stimulation (TMS) is a non-invasive neuromodulating treatment for depression in adults.¹ The FDA approved this treatment for the indication of adult depression in 2008 and since then several different TMS machines have been approved, as well as expanding indications for use of TMS. TMS can be administered in place of or as adjunct to conventional antidepressant treatment (SSRIs and/or psychotherapy, for instance).

Methods

TMS was introduced at a large health network in June 2018 for treatment resistant Major Depressive Disorder. As part of routine clinical care, patients were administered three symptom rating scales before, during, and after completion of TMS. Patient Health Questionnaire (PHQ-9) and Beck Depression Inventory (BDI) both measured symptoms associated with depression and the Generalized Anxiety Disorder Scale (GAD-7) measured symptoms associated with anxiety. Authors reviewed the patient-completed symptom scales from 6/2018 to 10/2020 to assess treatment response and remission rates as measured by these scales.



Results/Discussion/Conclusions

In total, 77 patients completed TMS treatment during this time period, with pre- and post- treatment scores for the three scales assessed. Regarding the PHQ-9 scales, 66% indicated symptom response and 26% indicated remission of symptoms. Regarding the BDI scales, 79% indicated symptom response and 50% indicated remission of symptoms. Regarding the GAD-7, 51% indicated symptom response and 38% indicated remission of symptoms.

Conclusions/Implications

TMS response and remission rates at this large health network compared very favorably with naturalistic studies that showed a 58% response rate and 37% remission rate.³ TMS is an effective modality for treatment resistant depression. Further analysis of intra-treatment rating scales may yield useful information regarding the optimal length and number of TMS treatments.

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