

Mental Health and TB: High prevalence of depression among drug-resistant TB patients not associated with cycloserine

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Background



- Depression often coexists with TB, and is often associated with poor treatment adherence and higher mortality.
- Drug-resistant TB (DR-TB) patients often receive cycloserine, a bacteriostatic drug with partial NMDA-receptor activity that is associated with neuropsychiatric side effects.
- We evaluated Patient Health Questionnaire-9 (PHQ-9) scores among DR-TB patients undergoing treatment with and without cycloserine.

Methods

- An ongoing prospective cohort of newly-diagnosed DR-TB patients (≥ 15 years) at a private referral hospital in Mumbai
- PHQ-9 questionnaire at enrolment and after 2 weeks, 1, 2, 3, 4, 5, and 6 months since treatment initiation.
- PHQ-9 scores between 1-4, 5-9, 10-14, 15-19 & ≥ 20 were defined as minimal, mild, moderate, moderate-severe and severe depression, respectively.

Results

- Of 55 DR-TB patients: 67% were female, 93% culture positive, 9% diabetic ($A1c \geq 6.5\%$) and 1 HIV infected.
- Of 52 patients with PHQ-9 scores, 10% (5/52) were severely depressed, 21% (11/52) moderately depressed, 29% (15/52) mildly depressed and 38% (20/52) minimally depressed at baseline (overall prevalence: 60% (31/52))
- Of 55 DR-TB patients, 44 were started on cycloserine.
- We compared mean PHQ-9 scores among patients treated with and without cycloserine, at entry, week 2, month 1, month 2, month 3, month 4, month 5 and month 6 of follow-ups and did not find any significant difference between the two groups (Table 1).

Figure

Average PHQ-9 Scores for MDR-TB Patients at Hinduja Hospital During Treatment, by Study Month

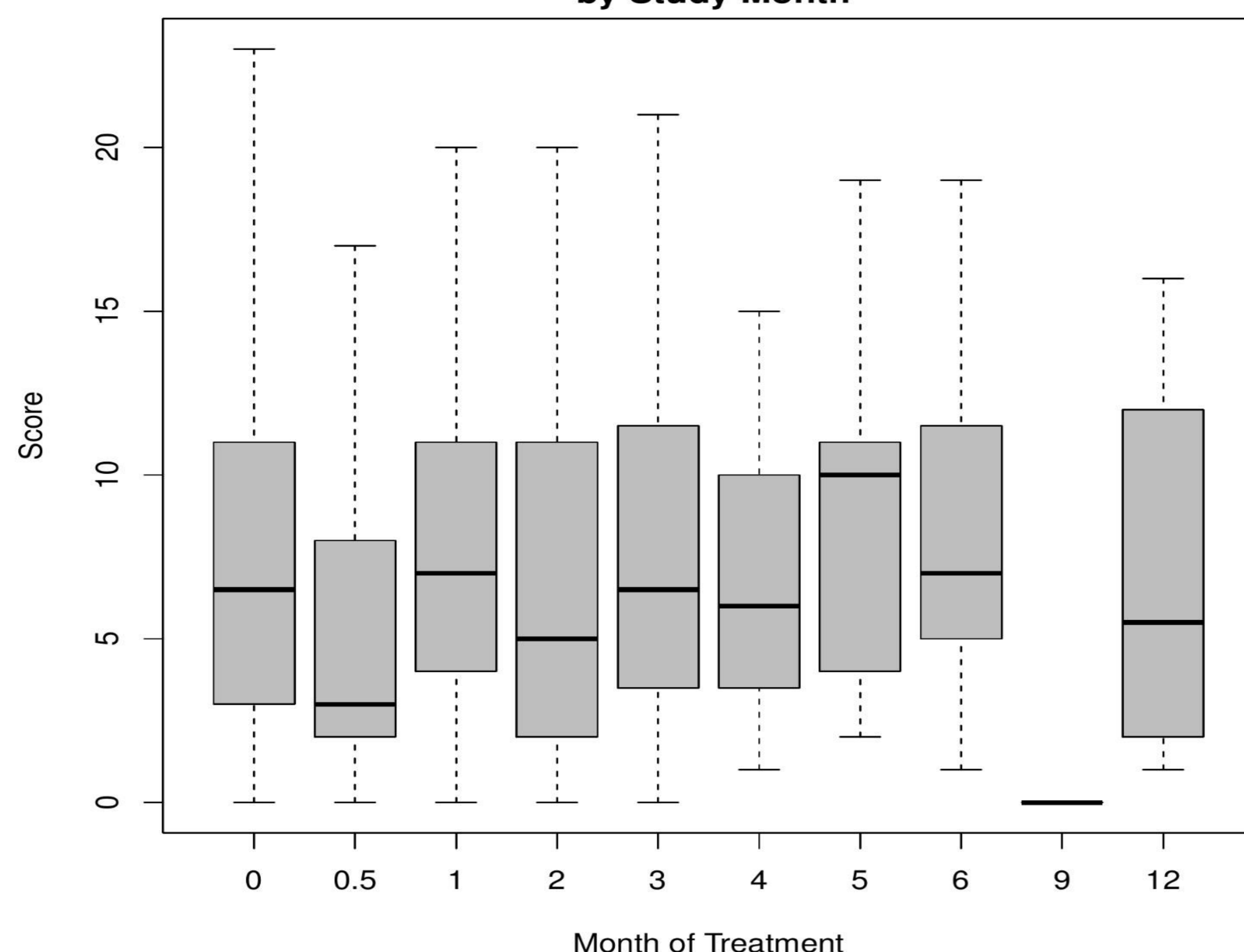


Table 1	Mean PHQ-9 scores		
Visit type	With Cycloserine treatment	Without Cycloserine treatment	P-Values
Entry	7.4	7.1	0.858
Week 2	5.3	5.4	0.941
Month 1	8.0	7.3	0.673
Month 2	7.1	7.0	0.962
Month 3	7.6	8.6	0.618
Month 4	6.9	8.1	0.583
Month 5	9.8	6.6	0.320
Month 6	8.1	7.9	0.933

Conclusion

- Depression as measured by PHQ-9 scores is very common during DR-TB treatment.
- The depression experienced during DR-TB treatment was not significantly exacerbated by concomitant cycloserine treatment.
- More attention should be paid to the mental health of DR-TB patients during treatment that could influence adherence and treatment outcomes

Acknowledgements

This work was graciously supported by NIH/NIAID (K23AI135102, UM1AI069465, R21AI122922), NIH/DBT RePORT India Consortium, the Johns Hopkins University School of Medicine Clinician Scientist Career Development Award, the UJMT Fogarty Global Health Fellows Program (R25TW009340), and the Gilead Foundation.