



Longitudinal Efficacy of Antidepressant Pharmacotherapy in Multiple Sclerosis

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Abstract

Objectives: To evaluate the longitudinal efficacy of antidepressant medication in multiple sclerosis (MS) patients.

Methods: Participants ($N = 349$) were recruited from an outpatient MS clinic at a medical center in New Jersey. Longitudinal depression and medication data were collected as part of ongoing neuropsychological research. Medication information was obtained from participants through interview and medical records, while participants also completed the Beck Depression Inventory-II (BDI). Pearson Chi-Square test and linear regressions were used to examine the course of depression over time for participants in antidepressant-medicated and non-medicated groups.

Results: Outcome data ranged longitudinally from 0.92 to 71.33 months ($M = 29.50$, $SD = 17.44$). Antidepressant medication status did not significantly relate to clinically meaningful change in BDI score ($X^2 = 2.619$, $p = .270$). Time did not significantly predict change in BDI score for the antidepressant ($\beta = -.050$, $p = .535$) or non-antidepressant groups ($\beta = -.006$, $p = .933$).

Conclusions: Depression's stability in the MS population appears refractory to the effects of standard antidepressant pharmacotherapy longitudinally. Additional or alternate management of depressive disorders is indicated for patients with MS.

Background

Depression in MS can be difficult to assess in the MS population given the complex neurological and psychiatric components of the disease. Depressive symptoms are a common complaint, with an estimated 25-50% of MS patients complaining of depression during their lifetime.¹ Prior research has suggested that depression among MS patients remains stable over time.² Despite the known risks of polypharmacy in MS,^{3,4} little research has investigated the long-term therapeutic benefit of antidepressant medication on the course of depression in MS. This research aims to investigate the degree of change in depression over time in MS patients who have been prescribed antidepressant medication regimens, compared to those not taking an antidepressant medication.

Methods

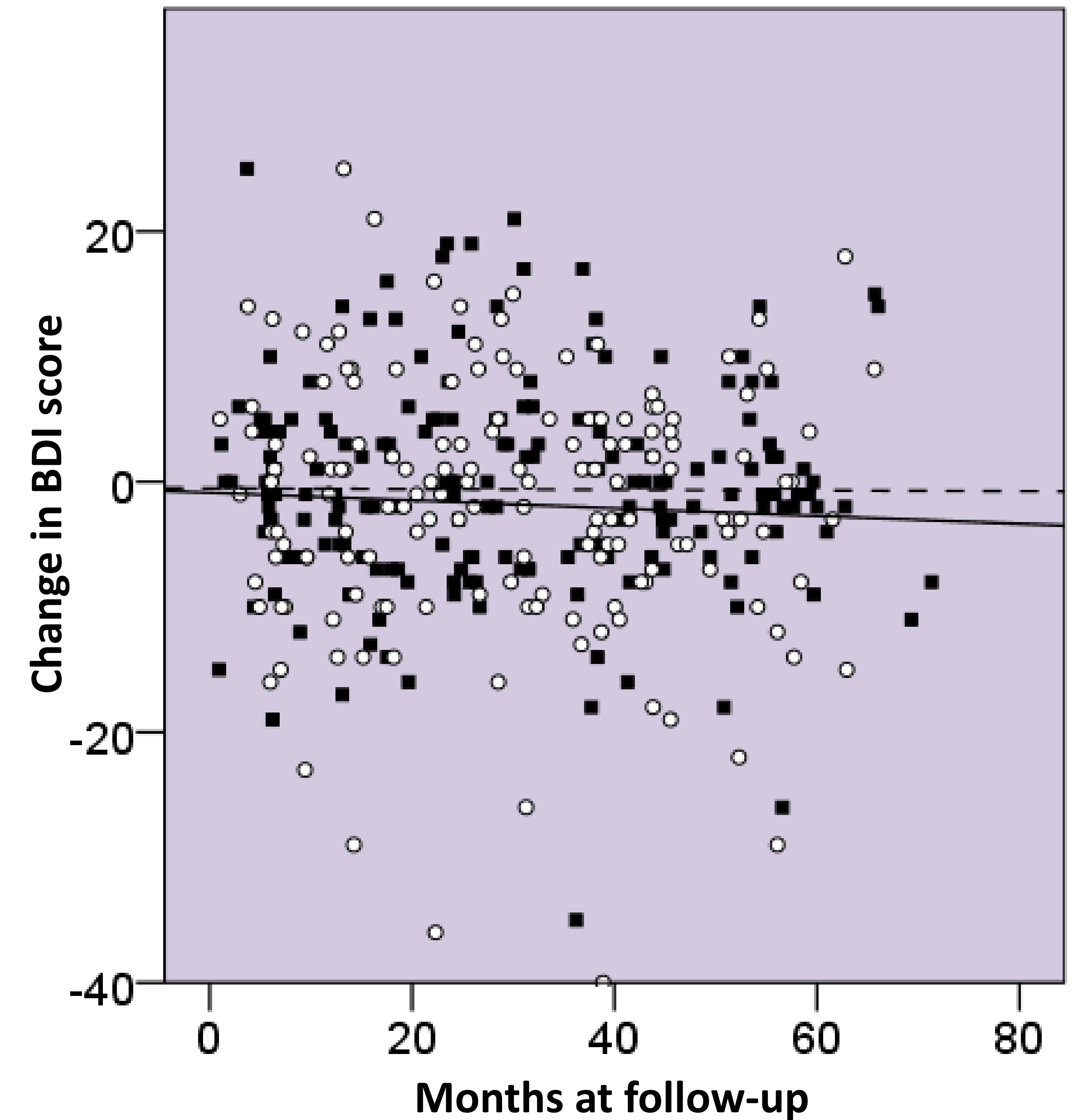
- 349 participants at an outpatient MS clinic in a large medical center received neuropsychological evaluation as part of their comprehensive care, and provided informed consent to the use of medical records in ongoing research.
- Participants completed the BDI at baseline and follow-up, and were sorted into one of two groups based on their medication regimen at baseline (antidepressant or no antidepressant).
- Pearson Chi-Square test was used to determine if antidepressant medication status related to clinically significant change in BDI score (defined as an increase or decrease of 5 or more points.)
- Linear regression was used to examine change in BDI score for each group between baseline and follow-up.

	<i>M</i>	<i>SD</i>	Range
Age (years)	44.04	9.17	21 – 71
BDI (baseline)	14.88	10.60	0 – 48
BDI (follow-up)	13.73	10.41	0 – 52
Change in BDI	-1.15	9.35	-40 – 25
Gender	Female: $n = 253$ (72.5%)		Male: $n = 96$ (27.5%)
Medication	Antidepressant: $n = 155$ (44.41%)		No antidepressant: $n = 194$ (55.59%)

Conclusions

- Use of antidepressant medication did not significantly predict a change in endorsement of depressive symptoms at follow-up, ranging from less than one month to almost six years.
- Patients taking antidepressants at baseline were no more likely to show increases or decreases in level of depression at follow-up compared to patients not receiving antidepressants.
- Depression is stable longitudinally and difficult to treat in the MS population. More comprehensive forms of treatment should be investigated to alleviate depression in MS patients.

Results



○ \ Antidepressant ($R^2 = .003$)
 ■ \ No antidepressant ($R^2 < .001$)

References

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