

Short-term and long-term depression outcomes following ECT are predicted by distinct social and clinical features

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Background

Patients and clinicians considering electroconvulsive therapy (ECT) for treatment-resistant depression are faced with limited prognostic information about their likely short- and long-term outcomes.

Furthermore, the individual characteristics that predict those outcomes are not well established.

This study aimed to identify baseline sociodemographic and clinical features that predict acute ECT response and subsequent long-term depression outcomes.

Methods

This prospective longitudinal study followed 114 adult patients at a single ECT referral center.

Dozens of subject characteristics were measured through a comprehensive clinical assessment at baseline, prior to ECT.

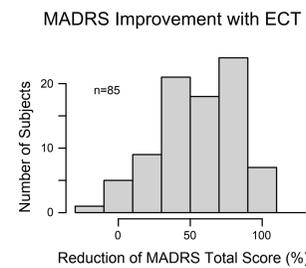
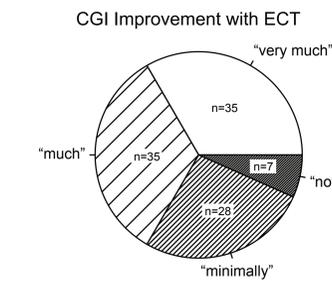
One-hundred-five participants completed an index ECT series.

The Clinical Global Impression (CGI) scale was the primary short-term outcome measure, and the Montgomery Asberg Depression Rating Scale (MADRS) was the secondary short-term outcome measure.

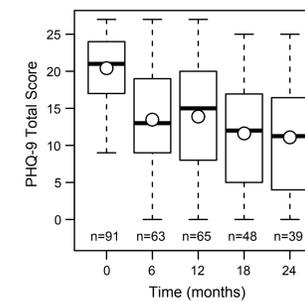
Eighty-two subjects provided data on long-term depression severity (Patient Health Questionnaire; PHQ-9) during a 2-year period following ECT.

Logistic, linear, and linear mixed models were used to evaluate predictors of depression outcomes.

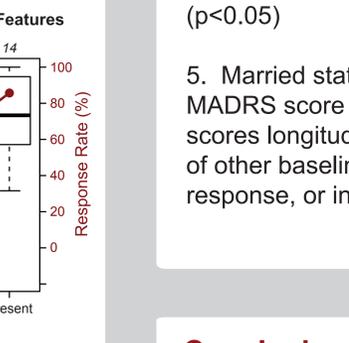
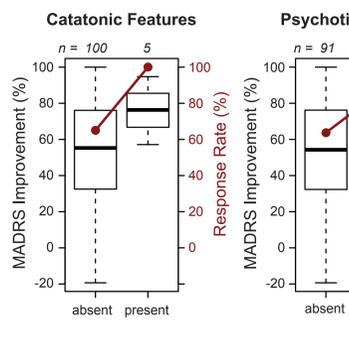
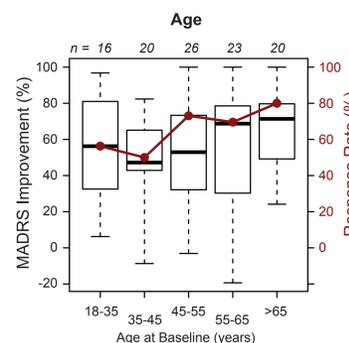
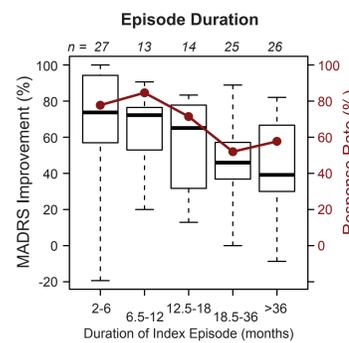
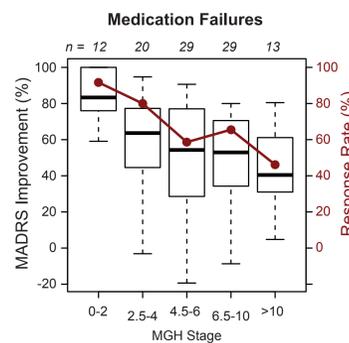
Short- and long-term depression outcomes following ECT



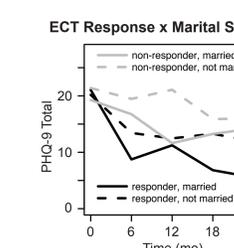
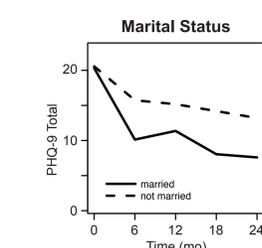
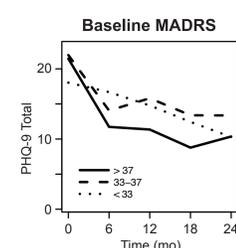
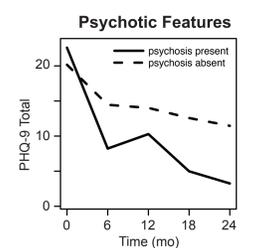
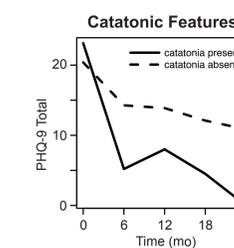
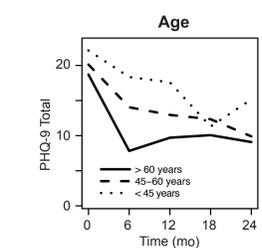
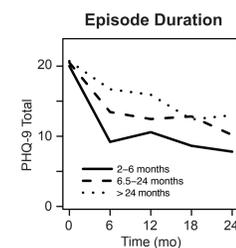
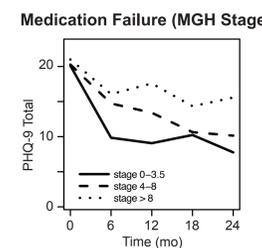
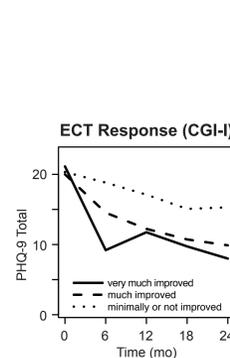
Long-term PHQ-9 Scores after ECT



Predictors of acute response to ECT



Predictors of long-term depression severity after ECT



Summary

- Better acute ECT response was predicted by less medication resistance, shorter index episode, and psychotic features ($p < 0.05$)
- PHQ-9 scores during the two-year follow-up period improved from baseline at all time points ($p < 10^{-6}$) but individual scores varied widely
- Long-term PHQ-9 scores were predicted by acute therapeutic response to ECT ($p = 0.004$) but not by ECT adverse effects
- Shorter index episode, psychotic features, and catatonic features at baseline predicted better long-term PHQ-9 scores ($p < 0.05$)
- Married status and higher baseline MADRS score predicted lower PHQ-9 scores longitudinally ($p < 0.001$), independent of other baseline features, initial ECT response, or intensity of ongoing treatment

Conclusions

These findings confirm previously identified predictors of acute ECT response and demonstrate that a distinct set of individual characteristics predict long-term depression outcomes.

An individual's social context appears to strongly influence long-term but not short-term outcomes, suggesting that social support may protect against post-ECT relapse.

Acknowledgements

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