P-496 - THE HAMILTON DEPRESSION RATING SCALE CANNOT RELIABLY MEASURE MILD OR MODERATE DEPRESSION

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Introduction: Demonstrating the superiority of antidepressants over placebo in randomized clinical trials of antidepressants (RCT-ADs) has been difficult. A recent meta-analysis of six RCT-ADs, by Fournier et al., concluded that the efficacy of antidepressants was “nonexistent to negligible” in mild and moderate depression.
Objective and aim: To reanalyze the same data in order to investigate if the meta-analysis was biased from insufficient measurement properties of the rating scale used, the 17-item Hamilton Depression Rating Scale (HDRS).
Methods: We got access to the primary data on item and individual level from 5 of the 6 meta-analyzed RCT-ADs. We reanalyzed these data by means of Item Response Theory (IRT).
Results: In each of the five studies the reliability of measurement was rapidly decreasing with diminishing depression severity. This resulted in low precision of measurement at endpoint levels and an underestimation of score reductions in patients who initially had milder depressions. As a consequence, 38% of the combined sample was measured at endpoint with IRT estimates of reliability that were less than half of the maximal.
Conclusions: The HDRS biases randomized clinical trials of antidepressants by providing unreliable primary data. Low or absent effect sizes are to be expected because of the scale's low precision and low sensitivity to change, particularly in mild and moderate depression. The conclusion of the Fournier et al. meta-analysis was therefore unfounded. The clinical value of antidepressants cannot be evaluated from unreliable data. Better measurement techniques for depression severity are urgently needed.

https://doi.org/10.1016/S0924-9338(12)74663-1 Published online by Cambridge University Press