

Controversies
October 15, 2015

Martin M. Katz: Onset of antidepressant effect

Martin M. Katz's response to Donald F. Klein's reply to Carlos Morra's comment

Klein requested that we show the actual data from a table in our (Katz et al 2011) paper that showed “early improvement” (EI) at two weeks of treatment to be predictive of treatment outcome after six weeks of antidepressant treatment. This data showing the two week improvement and 6 week outcome ratings in a 2X2 table, could then be used to test directly the significance of the relationship between early improvement and outcome, i.e., to confirm or disconfirm our prediction about the predictability of early treatment response..

We have since tested the predictability of changes, i.e., $\geq 20\%$, at two weeks for the two antidepressant drugs, desipramine and paroxetine (n=50), in the 2004 study (Katz et al). We defined recovery at outcome as $\geq 50\%$ decreases in each of two severity dimensions from the MV method (Katz et al 2004) and the Ham-D (21 item) total score. The two dimensions were “depressed mood-retardation” and “anxiety-agitation-somatization”. A comparable analysis was run for the group treated with placebo on the Ham-D.

Below are the 2X2 Tables for the **active drugs, the placebo and the chisquare results. The rows are number of “early improvements” ($\geq 20\%$), the columns, number of recovered ($\geq 50\%$) at outcome.**

I. Active Drugs

Depressed mood-retardation

Early Improvement(EI)	Recovered (>50% Ham-D decrease)		
No	Yes		
15	2	17	chisquare=18.5
8	25	33	p<0.0001
23	27	50	

Anxiety-Agitation

17	7	24	chisquare=11.5
6	20	26	p<0.0007
23	27	50	

Hamilton Rating Scale

10	13	23	chisquare=11.5
1	26	27	p<0.0007
11	39	50	

II. Placebo Treatment Group

Hamilton Rating Scale

EI	Recovered		
No	Yes		
3	10	13	chisquare=0.102
1	5	6	p<0.75
4	15	19	

Results: We note that all chisquare tests for the active drugs were significant well beyond 0.001 probability level affirming the strong relationship reported earlier in the paper

describing the 2004 study (Katz et al), They, therefore, do not negate as Klein expected, but further support the prediction hypothesis tested earlier in our study.

References

Katz MM, Tekell JL, Bowden CL, Brannan S, Houston JP, Berman N, Frazer A. Onset and early behavioral effects of pharmacologically different antidepressants and placebo in depression. *Neuropsychopharmacology*, 2004; 29: 566-79.

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Katz MM, Berman N, Bowden CL, Frazer A. The componential approach enhances the effectiveness of 2-week trials of new antidepressants. *J Clin Psychopharmacology* 2011; 37: 193-218.

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