Reviewer’s report

Title: Psychosocial functioning in patients with treatment-resistant depression after group cognitive behavioral therapy

Version: 4 Date: 17 December 2009

Reviewer: elisabeth H eurelings

Reviewer’s report:

Second review of the manuscript: Psychosocial functioning in patients with treatment resistant depression after group cognitive behavioral therapy.

I will add my comments after each remark.

1. The small number of patients included in the study (N=38 for T0 and T1; N= 20 for the FU).

The small number of patients is especially problematic in the use of multiple hierarchical regression analysis (MHRA). In general the ratio variables:subjects needs to be at least 1:15. The number of predictors in the analyses was 10, whereas the number of subjects was 38, a very unfavourable ratio, precluding the use of MHRA.

Besides, since it is well known that the level of distress/impairment at the start of treatment is often the best predictor of level of distress/impairment after treatment, it would have been better to include GAF and SF-36 at T1 as the dependent variables (in stead of difference scores) and to enter GAF and SF-36 as measured at T0 in the first step of the HRMA, before entering the other predictors.

Also in the repeated measures ANOVA, one should control for baseline levels of impairment.

-Advise: leave regression analyses out, and use baseline levels of dependent variables as covariates in repeated measures ANOVA.

Authors indeed left the HRMA out of their manuscript, which I think is a wise decision.

COMMENT: As expected, level of T0 was very important in predicting outcome at T1.

Why did not authors correct ANOVA for baseline scores?

2. Authors excluded a.o. patients with comorbid personality disorder. Severe depression however often goes together with a personality disorder. So how many patients were excluded on the basis of the exclusion criteria, especially comorbid PD? Next, and more importantly, how were comorbid personality disorders assessed?

COMMENT: O.k.
3. Authors need to provide reliability coefficients (Cronbach’s alpha) for the DAS, the ATQ-R and the SF-36.

COMMENT: ATQ-R: What does “satisfactory reliability” mean, please provide data.

4. The most important limitation concerns the lack of a control group.

COMMENT: Authors addressed this issue sufficiently. I would change the sentence: So we do not know whether the combined……for severe TRD” into: “So we do not know whether the findings of this study can be generalized to patients with severe TRD”.

Change last sentence of abstract into “These findings suggest a positive effect of adding CBT group therapy to medication on depressive symptoms and social functioning of mildly depressed patients, showing treatment resistance.

Discretionary Revisions

1. Effect sizes were expressed as partial eta squared (#p2). According to conventional criteria an #p2 of 0.01 is small; 0.06 moderate; 0.14 large. As such all effects found, except for one, are (very) large. However, a more appropriate ES measure is Cohen’s d. According to conventional criteria, d # .20 is considered a small ES; d # 0.50 a medium ES; and d # .80 a large ES.

Expressed in terms of Cohen’s d, four of the ESs found in this study are medium (SF-36, SF-36 physical functioning, SF-36 PCS general health perception and SF-36 MCS role functioning-emotional) and not large, as is suggested by the #p2.

COMMENT: O.k

2. Treatment response was defined as a 50% or greater reduction on the HRSD, compared to pretreatment score. However this way of calculating response may not imply a reliable change. Why did not the authors use Jacobson and Truax formula to calculate reliable chance and clinical significant change? These authors propose a two step evaluation. The first step entails an evaluation of reliable change by calculating a reliable change index (RCI) RCI is calculated as follows: RCI= (pretest – posttest)/ s.diff. Sdiff = #(2 x SE²). If RCI is greater than 1.96, the change is considered reliable at the 0.05 level of confidence. The second step consists of defining a cut-off point between functional and dysfunctional samples. When both criteria are met, the change is regarded as clinical significant.

COMMENT: Authors included this effect measure. O.k.

5. The fact that only 20 patients participated in the follow up measurement, may constitute a serious bias. In addition, it is unknown whether these 20 patients continued to use medication or took other forms of treatment. It is a pity that an intention-to-treatment analysis could not be done, due to the small number of patients included in the study.
COMMENT: Authors did ITT analyses O.K.

To summarize: an interesting and relevant study, with results that might be of interest to CBT, but with a design that does not allow to draw any firm conclusion about effectiveness of adding CBT to medication.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
'I declare that I have no competing interests'