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Letter to the Editor

Comments on 'Cognitive remediation improves memory and psychosocial functioning in first-episode psychiatric out-patients'

The authors (Lee *et al.* 2013) assume that meta-cognitions, such as self-efficacy might explain social and role functioning improvements of the group treated with cognitive remediation.

According to our own data (Trebo *et al.* 2007; Stürz *et al.* 2011), computer-assisted cognitive training leads to significant declines in depression scores (compared to control groups) in mildly (Beck Depression Inventory: mean=17) and moderately (Beck Depression Inventory: mean=25) depressed patients.

In our two studies mentioned above, we also assessed dysfunctional meta-cognitions as attributional styles and found that they were not significantly altered by computer-assisted cognitive training. Therefore, we propose that the improvement in social functioning scores reported by Lee *et al.* (2013) might have been mediated by mood stabilization because their sample was mildly depressed according to the reported Hamilton scores. These authors did not present post-treatment HAMD scores.

Declaration of Interest

None.

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Comments on 'Cognitive remediation improves memory and psychosocial functioning in first-episode psychiatric out-patients': a reply

We respectfully disagree with Stürz & Günther's (2013) remark that 'the authors assume that meta-cognitions, such as self-efficacy, might explain social and role functioning improvements of the group treated with cognitive remediation'. We direct the reader to our discussion (Lee *et al.* 2013), where we state that self-efficacy '*may* moderate functional change over and above cognition' [*italics added*]. We were merely canvassing potential factors that may additionally explain

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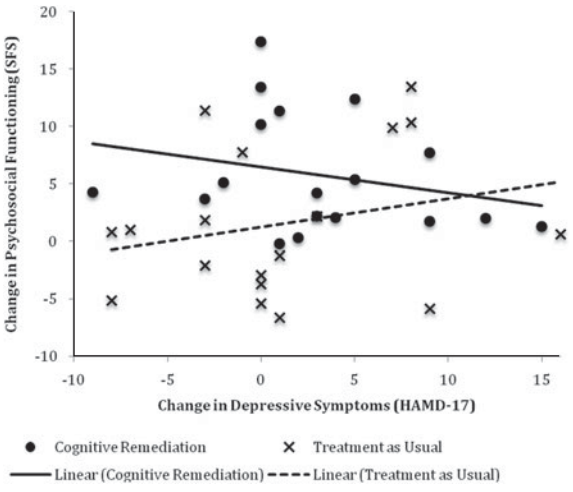


Fig. 1. Scatter diagram plotting changes in mood against changes in psychosocial functioning (a higher score indicates an improvement).

the functional improvements observed in our patients following cognitive remediation treatment. We did not intend to imply, as a statement of fact, that improved self-efficacy was responsible for the observed psychosocial functioning improvement.

With regard to depressive symptoms, further *post-hoc* analyses (not reported in the original report) revealed that depression was significantly reduced across both cognitive remediation and treatment as usual groups (mean change=2.08, S.D.=6.047, $F_{1,34}$=4.23, $p<0.05$). However, as stated in the original paper, neither group demonstrated significantly greater reductions in mood symptoms (i.e. there was no differential change in depression, or a statistical interaction, between groups; $F_{1,34}=0.92$, $p=0.34$). Thus, the most logical explanation for an overall improvement in mood is likely to be their continuing engagement with their 'treatment as usual' clinicians, which both groups continued to receive. Separately, we also investigated whether the psychosocial improvements observed in our study were linked to improved mood. As shown in Fig. 1, the trends are in the opposite direction of what would be expected if cognitive remediation elicited functional improvement through the alleviation of mood symptomatology. For cognitive remediation, improved mood was associated with decreased psychosocial gains, whereas in treatment as usual, improved mood was associated with improved psychosocial functioning. However, neither correlation was statistically significant ($r=-0.25$, $p=0.32$, and $r=0.25$, $p=0.33$, respectively), which further highlights the independence of mood and functional change in our study. Thus, due to the above findings, we argue that there is no evidence that the observed functional improvements following cognitive remediation were mediated by an improvement in mild depression.

Declaration of Interest

None.

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