Reviewer’s report

Title: A randomized controlled trial of cognitive remediation for a national cohort of forensic patients with schizophrenia or schizoaffective disorder.

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Reviewer: Antonio Vita

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In this study, 65 patients with schizophrenia or schizoaffective disorder within a national forensic cohort were enrolled in a single blind randomized controlled trial of CRT versus treatment as usual (TAU). The primary outcome measure was the composite score of the MATRICS Consensus Cognitive Battery (MCCB) while secondary outcome measures included neurocognitive and social cognitive domains, symptoms, and 'real world' functioning. Significant improvements were observed in visual and working memory in patients receiving CRT as compared to those receiving TAU. Mediation analysis found that those who cognitively benefited from CRT had corresponding improved functioning, and more net positive moves to units with lower security within the hospital. The Authors conclude that CRT may be an acceptable and efficacious intervention for forensic patients with schizophrenia or schizoaffective disorder.

This is an interesting study, performed in a nationally representative sample of forensic patients, and addressing a clinically relevant question.

Some points should however be considered:

1. The mean MCCB composite score of patients was about 3 SDs below the mean of a nonclinical sample: this raises the question of the representativeness of this sample of the larger population of patients with schizophrenia. Perhaps a general IQ level should have been calculated in order to exclude possible cases showing mental retardation.

2. There were no significant differences in social cognition, symptomatology and functioning or net positive moves after the intervention period or at follow up between the CRT and TAU groups, after covarying for baseline values of the specific variable (and there was a difference in favour of TAU for the PANSS excitement factor): these are negative findings that are not highlighted and discussed enough in the paper.

3. The fact that the mediation analyses revealed significant associations between cognitive gain and change in functioning in CRT treated patients opens the question of identifying the characteristics of patients who obtain such gains and of predicting them, while this is not considered in the paper and discussion.
4. Also, it would be interesting to know which factors were associated to functional improvement and net positive moves in TAU treated patients.

5. The CRT intervention and its flexible principles are interesting but seem scarcely standardized and hardly replicable by other groups.

6. On the other hand, the feasibility and high acceptability of CRT in this cohort of forensic patients is an important finding that positively addresses an unmet need in a group of patients particularly difficult to treat.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

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