Cognition and functioning in bipolar depression

Revista Brasileira de Psiquiatria

Kapczinski et al. investigate the relationship between cognition and global functioning in a group of adults with bipolar depression. They selected standardized measures such as the WAIS-III and WCST and assessed the severity of depressive symptom with the MADRS. Global functioning was assessed with the FAST. The authors found that patients, with severe depression displayed deficits in the WCST and digit span compared to healthy controls, and showed worse global functioning than those with moderate depression. The authors conclude that cognitive impairment and global functioning impairment are associated with the severity of depressive symptoms in bipolar depression.

I would like to commend the authors for their original work and the strengths of their study including the sample size, selection of the severity of clinical symptoms, and decision to focus on cognitive functioning in relation to global functioning as it is a relatively new concept in the field. Considering these strengths I found some areas which I would have appreciated greater clarity. I am therefore suggesting minor revisions that should be easily addressed by the authors.

1. Abstract/manuscript: please provide the full name of the questionnaire/test before used the acronym (e.g. WAIS, WCST, ISBD)
2. Given the large age range among participants (20-71) have the authors thought of running post-hoc analyses comparing younger and older BD participants with depressive symptoms? Were there any age differences between high MADRS scorers and low MADRS scorers? Adding a few comments on age vs cognitive impairment in BD concept in the conclusions could be beneficial.
3. Could the authors provide additional information on the FAST: what it is meant to measure, brief summary of findings from previous studies.
4. Could the authors provide a better rationale of why the selected the digit span subtest of the WAIS-III?
5. Statistical section: Please provide explanation of which comparisons were made as part of ANOVA analyses (e.g. bipolar vs healthy controls, high vs low MADRS scorers etc.), how they dealt with multiple comparisons, what was the statistical threshold (e.g. p<.05), did they use chi-squares to compare categorical variables such as gender?
6. Results: could they please report statistical findings in an APA-like style format (degrees of freedom, F, p-value). It would help the reader figure out the N in each analysis. Why do authors report F for WCST and MADRS and switch to Z for global functioning?
7. In the discussion I would recommend that the authors make a conscious effort to talk about executive function and working memory rather than using the generic term cognitive performance as this is a better reflection of their results.
8. I would encourage the authors to expand their discussion and refer to the reported impaired cognitive domains in function of mood and previous findings. For instance what about talking about the relationship between the limbic system and the fronto-cingulate network (possibly underlying performance in these cognitive tests).
9. Could authors add references and re-write the following sentence on page 8: “can cause loss on adaptive plasticity etc…”. what are they referring to?
10. Please add reference to the following statement “abilities that are necessary….to achieve an adequate functional performance”.
11. Table 1: could authors add p-values for the comparisons of all measures between BD and HC. Also could they please mention somewhere the N of high and low MADRS scorers. Was the N comparable in the 2 groups?