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Entering the Debate: Cognitive enhancement therapy for mood disorders: A new paradigm?

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The recently published debate article by Douglas et al. 2019[1] contends to introduce new terminology for therapeutic interventions on cognition in patients with major mood disorders. The authors argue that the commonly-used term 'cognitive remediation therapy' does not capture the essence of the approaches that are currently being applied. We would like to enter into this debate with a clear agreement on some of the points made and respectful disagreement on others.

While we firmly agree that cognitive impairment in patients with mood disorders is an independent treatment target of utmost importance to their quality of life, in contrast to statements in Douglas et al (2019)[1] we believe there has already been substantial progress in the field toward this goal. Indeed, not only have there been explicit attempts to educate clinicians of the importance of assessing cognition[2], but also attempts to intervene directly with either pharmacological approaches or cognitive remediation strategies, with some success[3]. These are hugely difficult tasks and they take time - but there are many groups around the world working toward these goals.

Further, the statement by Douglas et al.[1], that there are "important differences [between schizophrenia and mood disorders] related to the usual magnitude of deficits, the likely plasticity of deficits, and the importance of subjective deficit which is likely to be a considerably more important factor in mood disorders" is problematic in several ways. First, earlier studies comparing schizophrenia with bipolar disorder have failed to account for heterogeneity in cognitive functioning. Several recent studies from multiple independent groups now show that when heterogeneity is adequately addressed, there is a substantial proportion of patients with bipolar disorder who have deficits that look nearly identical to those reported in schizophrenia[4]. A similar story has emerged in major depressive disorder, albeit with a smaller proportion of patients evidencing impairment. These diagnostic differences in cognitive function are not necessarily a matter of magnitude, they are in many ways more a matter of frequency. We really cannot say that they reflect differences in plasticity or other neural processes that might be driving impairment in the subset of patients who suffer from it, as these mechanisms are still poorly understood. Second, although evaluating subjective cognition may be clinically-useful in some ways, subjective cognitive complaints are not the same as cognitive impairment and they are likely reflecting something else altogether, namely unresolved mood symptoms. This has been reported consistently in the literature to date. If subjective cognitive problems track closely with depression, then one would target the

depressive symptoms, not cognitive functioning – an important distinction when considering interventions that are truly aimed at cognitive enhancement.

We would also like to comment on the proposed relabeling of cognitive remediation by raising some additional knowledge gaps that were not fully addressed in Douglas et al[1]. Beyond cognition, what are the factors that uniquely impact the efficacy of cognitive remediation strategies in mood disorders (e.g. specific aspects of reward processing (e.g. reward sensitivity); cognitive and affective biases), and could/should those be targeted in the context of cognitive remediation? Conversely, are there aspects that are unique to mood disorders that might be especially conducive to cognitive remediation (e.g. generally intact insight, enhanced creativity) and can we capitalize on that? Among the most important points of discussion: can the cognitive impairment that onsets around or following the onset of a mood disorder (as opposed to the neurodevelopmental impairments that are more frequent in schizophrenia) be targeted with the explicit goal of forestalling their onset and progression, not just treating the symptoms as they emerge. We believe that if there is a place for new terminology, it relates to the prospect of preventing cognitive decline from occurring in the first place.

Finally, the term 'Cognitive Enhancement Therapy' (CET) is not new, and actually refers to a specific treatment developed by Hogarty and colleagues[5] and published on extensively by Hogarty, Keshavan, Eack

and colleagues in multiple populations including schizophrenia, clinical high risk, and autism spectrum disorders. The addition of the "MD" at the end to specify its use in mood disorders neither reduces potential confusion regarding the existing CET protocol, nor furthers what we believe to be the authors' goal of improving access to and allowing for broader use of targeted cognitive interventions in patients with mood disorders.

We would like to note that we respect the opinions and work of our colleagues but wanted to offer our view on this very important topic.

Citations

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