Proiling Cognitive Impairment in Recovered Major Depressive Disorder

INTRODUCTION

The clinical and socio-economic burden associated to Major Depressive Disorder (MDD) has prompted interest for therapeutic drug interventions to specifically address cognitive impairment in Major Depressive Episodes (MDEs). However, cognitive deﬁcits may persist even in patients with residual depressive symptoms across different MDD states (i.e., partial remission, full remission, recovery). Recovery refers as to a depressive symptomatic status characterised by minimal symptom expression and an interval of sustained remission of at least 2 months [The APA Diagnostic and Statistical Manual (DSM) of Mental Disorders - Version 5 (American Psychiatry Association 2013)]. A clear characterisation of cognitive impairment in recovered MDD has not been drawn yet. Therefore, there is no sufﬁcient basis to determine cognitive impairment as an unmet medical need in this patient sub-group. Furthermore, MDD cognitive dysfunction is broadly conceptualised as the co-occurrence of state-related, trait, or scar-based patterns of impairments. Each of the patterns has different and diversiﬁed neurobiological correlates. Speciﬁc cognitive deﬁcits in recovered MDD can be markers of the co-occurring trait and scar-based patterns of cognitive impairments.

METHODS

Systematic literature review with meta-analysis.

RESULTS

Twenty-three studies with 1,517 participants: 819 adult, non-elderly, recovered, with early onset MDD patients compared to 698 healthy subjects.

DISCUSSION AND CONCLUSION

MDD recovered patients show a range of deﬁcits across attention, verbal memory, and executive functions. These speciﬁc elements of cognitive impairment can be interpreted as resulting from the co-occurrence of pre-existing trait and residual scar-related cognitive deﬁcits.

Small magnitude (20< Hedges’s d < 50) and homogeneous effect sizes in a number of cognitive tasks and their derived measures were noted. The general absence of signiﬁcant heterogeneity among effect sizes across all mentioned outcomes as well as indexes of publication bias support the robustness of these ﬁndings.

Our meta-analytic work is based on the inclusion of studies adopting a cross-sectional design. Unfortunately, the utility of this approach is limited to the identiﬁcation and characterisation of speciﬁc elements of cognitive impairment and cannot be applied for the validation of patterns of cognitive dysfunction that can differentiate trait from scar cognitive type effects.

Ideally, prospective, longitudinal, long-term (i.e., several years) studies on repeated-assessment of cognitive functioning in a large cohort of subjects (including current MDE, remitted, recovered patients as well as in pre-syndromal MDD) would retain the ability to differentiate across cognitive impairment pattern types (i.e., state-dependent, trait, scar).