Response to Reviewer

We do appreciate our Reviewer's efforts to improve our manuscript with his/her constructive comments. We have revised the manuscript according to the recommendations as detailed below. All changes are indicated with red color in the revised manuscript for easy inspection.

Reviewer #1: Consider adding correlations with ratio between frontal cortex volume versus rest of the brain.

Authors' reply: We have accepted our reviewer's recommendation and inserted information regarding the correlation between frontal cortex volume and aggressive behavior into the following parts of the manuscript:

Dementia subchapter: 'The main neuropathological finding related to progressive changes in behavior and aggression[15-17] is prefrontal cortical atrophy, which is also associated with dementia[18]. In frontotemporal dementia, anger and other confrontational/critical and emotionally charged ideas and behaviors underpin the development of interpersonal aggression and social isolation[19]. Further brain areas significantly associated aggression in dementia include the dorsomedial prefrontal and orbitofrontal cortices and the amygdala[20-22].'

Alcohol subchapter: 'It is well-established that heavy alcohol consumption affects prefrontal cortex thereby contributing to the development of aggressive behavior[57-59]. Even a small amount of alcohol can reduce the activity of the medial prefrontal cortex[60] resulting in the impairment of prefrontal executive functions, which may lead to careless, inappropriate, or aggressive behavior[61,62].'

Bipolar Affective Disorder subchapter: 'The association between prefrontal cortical dysfunction and aggressive behavior in bipolar patients has

been repeatedly confirmed[152-154]. Damage to the prefrontal cortex results in disruption of executive functions, leading to dysfunctional patterns of behavior in the social realms including emotional outbursts, increased risk-taking and aggression as well as disorganized behavior[61,155]. Executive dysfunction is common in bipolar disorder, schizophrenia and acute psychoses[156,157], where impaired impulse control and dysregulated behavior manifest in aggression[158].'

We have also extended the list of references with relevant publications (15-22; 57-62; 152-158).