Synopsis no.: S2.25

Preliminary title: PREMORBID ADJUSTMENT AND CANNABIS USE IN FIRST EPISODE PSYCHOSIS PATIENTS

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Publication category: 1

Working and writing group: Cannabis and psychosis group

Work Packages involved: WP2

Partners involved from whom candidate co-authors (*additional to working and writing group*) should be nominated: Marta Di Forti, Robin Murray, Caterina La Cascia, Daniele La Barbera, Craig Morgan, Jim Van Os, James Kirkbride, Lieuwe de Haan, Eva Velthorst, Celso Arango Lopez, Laura Roldan, Lucia Sideli (other names from Palermo group will be probably added later).

Background Many studies report that patients with psychosis who used cannabis have a better cognitive performance than those who did not (Potvin et al. 2008; Yücel et al. 2010; Rabin et al. 2011). This is unexpected, as it has been shown that cannabis use can impair cognition in healthy subjects (Potvin & Amar, 2008). In a sample of 119 first episode psychosis (FEP) and 160 healthy controls (as part of GAP study-London), we tested the hypothesis that patients who smoked cannabis "lifetime" showed a higher premorbid IQ, assessed by WTAR (p=0.001), a measure of premorbid IQ and a proxy for a better premorbid social adjustment, resulting in a better IQ, assessed by WAIS—III (p=0.011), compared to those who did not; but no such effect was found in healthy subjects. These results are consistent with the idea that better premorbid functioning is necessary to acquire and sustain an illegal drug habit. Very preliminary data on Palermo EUGEI sample (50 cases and 74 controls) show that our IQ is almost influenced by scholarship. The Premorbid Adjustment Scale (PAS) is not related to IQ in controls (p>0.05) but it is related to IQ in cases in terms of to have been good at school before 12 years (r=-0.507, p=0.002) and between 12 and 16 years (r=0.569, p=0.001) and in terms to have been well adapted at school before 12 years (r=-0.344; p=0.048) and between 12 and 16 years (r=-0.390; p=0.027). There are no relationships between IQ and social adaptation or adaptation with peers or socio-sexual adaptation (all p>0.05). Impairment at school and school adaptation by PAS and IQ are not related to cannabis use neither in cases and controls, all these scores are lower in cases in comparison to controls (p<0.001). Cases and controls are similar in social withdrawal and relationships with peers before 12 years (all p>0.05) but cases are more withdrawn (t(79.1)=2.3, p=0.029) and less related with their peers (t(111)=2.4, p=0.016) later in life, between 12 and 16 years. Social withdrawal before 12 years is lower in people who smoked cannabis lifetime (F(1)=4.1, p=0.046), social withdrawal between 12 and 16 years and relationships with peers are related to case/control status (F(1)=6.4, p=0.013 and F(1)=6.0, p=0.016 respectively) and to cannabis use (F(1)=4.1, p=0.045 and F(1)=5.4; p=0.021 respectively). Socio-sexual adaptation is related to cannabis use lifetime (F(1)=7.6, p=0.007), independently from case/control status (p>0.05).

Hypothesis

FEP patients who have used cannabis lifetime have better cognitive performance and premorbid adjustment than FEP who have not used cannabis compared to controls.

Objectives

To test this hypothesis on a wide sample of cases and controls from different countries. To see variations across different countries in the relationship between cannabis use and premorbid adjustment.

References

Potvin, S., Amar, M.B., 2008. Review: cannabis use increases the risk of psychotic outcomes. Evid.-Based Ment. Health 11, 28.

Potvin, S. (et al.), 2008. Contradictory cognitive capacities among substance-abusing patients with schizophrenia: a meta-analysis. Schizophr. Res. 100, 242–251.

Rabin, R.A. (et al.), 2011. The effects of cannabis use on neurocognition in schizophrenia: a meta-analysis. Schizophr. Res. 128, 111–116.

Yücel, M. (et al.), 2010. The impact of cannabis use on cognitive functioning in patientswith schizophrenia: ameta-analysis of existing findings and new data in a first-episode sample. Schizophr. Bull. 38, 316–330.

Data needed for the study: MRC, Cannabis Experience Questionnaire, PSN, PAS, IQ.

Plan for statistical analysis (overall strategy): FACRORIAL ANCOVA 2X2
(CASE/CONTROLXCANNABIS YES/NO) corrected for gender and age. Dependent variables: IQ and PAS subscales.

Other analyses/methods: strafication of the sample by country.

Involvement of external Parties (non EU-GEI): none

IPR check:

Timeframe:

Additional comments: