

Synopsis for EU-GEI Publication

Synopsis no.: S2.6
Preliminary title: Proportion of First episode psychosis attributable to cannabis use across Europe; differences in pattern of cannabis use and their impact on first episode psychosis.
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Publication category: 2
Working and writing group: cannabis group
Work Packages involved: WP2
Partners involved from whom candidate co-authors (<i>additional to working and writing group</i>) should be nominated: Lieuwe de Haan and E Velthorst, Jim van Os and Wolfgang Viechtbauer
Objectives (scientific background, hypothesis, methods, and expected results): An understanding of the aetiology psychotic disorders has to consider different combinations of risk factors, none of which are necessary or sufficient for illness onset. Such component causes are likely to be distributed differently in different populations and be reflected in variations in disease incidence. Thus schizophrenia shows incidence rates varying up to fivefold . Moreover, <i>Sample for analyses:</i> Incidence sample N=1200 cases; N=1200 controls Primary Hypothesis to be tested: <ol style="list-style-type: none">1. We expect significant differences in lifetime patterns of cannabis use between cases and controls (across the EU sites).2. We expect frequent use of high potency cannabis to be associated with the highest likelihood of incident psychosis across EU.3. We expect EU Countries where the use of high potency cannabis is highly prevalent to have the greatest proportion of new cases of psychosis attributable to cannabis use.
Data needed for the study: <ol style="list-style-type: none">1. Basic Socio-demographics from social scale questionnaire (i.e. age, gender, ethnicity, level of education...).2. All data from the EU GEI CEQ

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Plan for statistical analysis (overall strategy):

- a) Using Stata 12. χ^2 tests and t-tests (or Mann-Whitney U tests) were used to : 1) test for associations between potential confounding variables and presence of psychotic disorder and exposure to cannabis use; 2) establish if missing data on the exposure cannabis use were associated with case-control status and therefore were likely to bias the results. 3) Comparing patterns of cannabis use, expressed by the markers of CHU, across the EU sites.
- b) Adjusted Logistic regression will be used to estimate if differences in patterns of cannabis use reflect in differences in the likelihood to suffer from a psychotic disorder among cannabis in different EU countries.
- c) Finally, using the Bruzzi and Green (1985) formula for case-control studies, we will calculate the proportion of psychotic disorders in the study population which was attributable to the markers of exposure to cannabis use that best estimates probability of illness onset in each EU site. This proportion, assuming a causal role, is known as the Population Attributable Fraction (PAF) and it can be estimated from the prevalence of exposure (i.e. makers of cannabis use) in cases (p) and the OR for the exposure:
 $PAF = p(OR-1)/OR$.

Other analyses/methods:

Other methods to estimate the PAF will be later discussed with Craig Morgan and James Kirkbride

Involvement of external Parties (non EU-GEI): No

IPR check:

Timeframe: 4 months

Additional comments:

None