

## Synopsis for EU-GEI Publication

<b>Synopsis no.: S2.16</b>
<b>Preliminary title:</b>  Differences in lifetime patterns of psychostimulant use and their impact on the proportion of patients with first-episode psychosis across Europe
<b>Contact info for the person(s) proposing the synopsis</b>  <b>Name:</b> Gonzalo López <b>Partner no:</b> <b>e-mail address:</b> gonzalo.lopez@iisgm.com
<b>Publication category:</b> 3 ( <i>Publications from work from a single Work Package, involving ONLY SOME Parties (or in some cases only one party) in the Work Package</i> )
<b>Working and writing group:</b> Madrid, Spain: Gonzalo López, Laura Roldán, Teresa Sánchez-Gutiérrez, Ana Calvo, Emiliano González, Marta Rapado-Castro, Celso Arango.
<b>Work Packages involved:</b> WP2
<b>Partners involved from whom candidate co-authors (<i>additional to working and writing group</i>) should be nominated:</b> Marta Di Forti, Robin Murray, Craig Morgan, Valentina R, Ilaria T, Eva Velthorst, Lieuwe de Haan.
<b>Objectives (scientific background, hypothesis, methods, and expected results):</b>  <b>BACKGROUND</b>  Substance use may be a risk factor for the onset of schizophrenia. Some first-episode studies have found an earlier age of onset for individuals with a history of substance use (Rabinowitz et al., 1998; Mastrigt et al., 2004). Almost 50 % patients with first episode psychosis have a history of cannabis or alcohol use (Kovaszny et al., 1997; Wade et al., 2005; Wade et al., 2006; Mauri et al., 2006; Archie et al., 2007; Kamali et al., 2009; Hides et al., 2006; Bartett et al., 2007) while the use of cannabis ranges from 2-8% in general population from European countries (UNODC, 2013). Smaller but significant proportions of this population have a history of psychostimulants use (cocaine and amphetamines) (Kovaszny et al., 1997; Archie et al., 2007; Green et al., 2004). Furthermore there are differences in the patterns of psychostimulants use across EU countries (EMCDAA, 2013).  Psychostimulant consumption can induce psychotic symptoms that usually revert after drug withdrawal. Nevertheless, some psychostimulant users suffer not just spontaneous relapse of the symptoms but also persistent psychosis in the absence of the drug (Chen et al., 2003). One study in Taiwan showed that of the 2000 methamphetamine users involved 7% experienced persistent psychotic symptoms lasting more than 1 month after drug withdrawal (Chen et al., 2005). In other

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study almost 25% of methamphetamine users who were hospitalized following an acute psychotic episode, had been diagnosed with schizophrenia at 5-year follow up (Kittirattanapaiboon et al.2010).

### **HYPOTHESIS**

1. Patients with a history of psychostimulants use will present a first-episode psychosis earlier than patients who never used psychostimulants.
2. We expect to find differences in lifetime patterns of psychostimulant use between cases and controls across the EU sites.
3. We expect to find that patients with a high frequency (e.g. daily vs. weekly) of psychostimulant intake will have more probability to present a first-episode psychosis.
4. We expect EU countries where the use of psychostimulants is highly prevalent to have the greatest proportion of new cases of first-episode psychosis.
5. Patients who had a history of psychostimulant use will present more positive symptoms than non-users.

### **OBJETIVES**

To assess the relationship between psychostimulant use and age of onset of first-episode psychosis.

To detect the prevalence of psychostimulants use among first-episode psychosis patients and analyze the influence of different patterns of consumption on the development of first-episode psychosis.

To calculate the proportion of new cases of first episode psychosis related to psychostimulants use in each EU site.

### **Data needed for the study:**

1. Socio-demographics scales
2. Cannabis Experience Questionnaire
3. FIGS Relative Form
4. FIGS Pedigree Data Form
5. NOS-DUP
6. OPCRIT
7. Medication List

### **Plan for statistical analysis (overall strategy):**

- a) First of all, we will perform a sample/power analysis.

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<p>b) <math>\chi^2</math> tests and t-tests will be used to:</p> <ol style="list-style-type: none"><li>1) Test for associations between potential confounding variables between patients and controls.</li><li>2) Compare patterns of psychostimulants use across the EU sites.</li></ol> <p>c) ANCOVA analysis will be used to estimate if differences in patterns of psychostimulants use reflect in differences in the likelihood to suffer from a first episode psychosis among different EU countries. Potential confounders as the use of cannabis or other drugs, urbanicity, migration, etc, will be considered in this analysis.</p>
<b>Other analyses/methods:</b>
<b>Involvement of external Parties (non EU-GEI):</b> No
<b>IPR check:</b>
<b>Timeframe:</b>
<b>Additional comments:</b>