

Synopsis for EU-GEI Publication

Synopsis no.: S2.17
Preliminary title: Differences in lifetime patterns of tobacco use between patients with first episode psychosis and controls in a European sample
Contact info for the person(s) proposing the synopsis Name: Teresa Sánchez-Gutiérrez Partner no: e-mail address: tsanchez@iisgm.com
Publication category: 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>)
Working and writing group: Madrid (Spain): Teresa Sánchez-Gutiérrez, Ana Calvo, Laura Roldán, Gonzalo López, Marta Rapado-Castro, Julio Bobes, Eva María Díaz-Mesa, Susana Al-Halabi, Paz García Portilla, Celso Arango.
Work Packages involved: WP2
Partners involved from whom candidate co-authors (<i>additional to working and writing group</i>) should be nominated: Marta Di Forti, Robin Murray, Craig Morgan, France, Valentina R, ??? Lieuwe de Haan, Aziz Ferchiou, Bologna, France, anyone else?
Objectives (scientific background, hypothesis, methods, and expected results): <ul style="list-style-type: none">• Background <p>Tobacco is the most widely used addictive substance in the world, both in the general and psychiatric population (Degenhardt et al., 2008) and this fact is consistent across countries and cultures (de Leon & Diaz, 2005). The high prevalence of tobacco smoking is consistent with evidence that this habit is strongly associated with psychosis compared with other forms of severe mental illness (de Leon, Becona, Gurpegui, Gonzalez-Pinto, & Diaz, 2002). Regular tobacco use generally precedes the onset of psychosis (Beratis, Katrivanou, & Gourzis, 2001; Kelly & McCreadie, 1999; Kotov, Guey, Bromet, & Schwartz, 2010; Ma et al., 2010) and it may suggest that tobacco use might be a risk factor in psychotic illness (Hays, 2000; Kelly & McCreadie, 1999), with a dose-response relationship (Saha et al., 2011). Antipsychotic medication also plays a role in the metabolization of tobacco and it could contribute to increase the chance to use cigarettes (de Haan, Booi, Lavalaye, van Amelsvoort, & Linszen, 2006). Furthermore, there is a paucity of comparative studies regarding the influence of patterns of tobacco use in patients with a first episode of psychosis (FEP).</p>• Hypothesis <p>Participants with daily use of tobacco for the previous year of psychosis onset and without any other comorbid substance use would present first episode of psychosis more frequently than the control group.</p>

Synopsis for EU-GEI Publication

Patients who use tobacco during the previous year of psychosis onset and without any other comorbid substance abuse would be at risk of developing psychosis earlier than patients who do not use tobacco.

Participants with heavy use of tobacco (>23 cigarettes per day, based on (Saha, et al., 2011)) would present first episode psychosis more frequently than participants with medium or lower frequency of tobacco use.

- Objective

To examine the influence of different patterns of tobacco use on the development of first episode of psychosis.

To examine the influence of tobacco use on age of onset of psychosis in patients with FEP.

Beratis, S., Katrivanou, A., & Gourzis, P. (2001). Factors affecting smoking in schizophrenia. *Compr Psychiatry*, 42(5), 393-402. doi: S0010-440X(01)15510-0 [pii] 10.1053/comp.2001.26273

de Haan, L., Booij, J., Lavalaye, J., van Amelsvoort, T., & Linszen, D. (2006). Occupancy of dopamine D2 receptors by antipsychotic drugs is related to nicotine addiction in young patients with schizophrenia. *Psychopharmacology (Berl)*, 183(4), 500-505. doi: 10.1007/s00213-005-0218-x

de Leon, J., Becona, E., Gurpegui, M., Gonzalez-Pinto, A., & Diaz, F. J. (2002). The association between high nicotine dependence and severe mental illness may be consistent across countries. *J Clin Psychiatry*, 63(9), 812-816.

de Leon, J., & Diaz, F. J. (2005). A meta-analysis of worldwide studies demonstrates an association between schizophrenia and tobacco smoking behaviors. *Schizophr Res*, 76(2-3), 135-157. doi: S0920-9964(05)00075-7 [pii] 10.1016/j.schres.2005.02.010

Degenhardt, L., Chiu, W. T., Sampson, N., Kessler, R. C., Anthony, J. C., Angermeyer, M., . . . Wells, J. E. (2008). Toward a global view of alcohol, tobacco, cannabis, and cocaine use: findings from the WHO World Mental Health Surveys. *PLoS Med*, 5(7), e141. doi: 10.1371/journal.pmed.0050141 07-PLME-RA-0801 [pii]

Hays, P. (2000). Does smoking cause schizophrenia? *Can J Psychiatry*, 45(10), 940-941.

Kelly, C., & McCreadie, R. G. (1999). Smoking habits, current symptoms, and premorbid characteristics of schizophrenic patients in Nithsdale, Scotland. *Am J Psychiatry*, 156(11), 1751-1757.

Kotov, R., Guey, L. T., Bromet, E. J., & Schwartz, J. E. (2010). Smoking in schizophrenia: diagnostic specificity, symptom correlates, and illness severity. *Schizophr Bull*, 36(1), 173-181. doi: 10.1093/schbul/sbn066

sbn066 [pii]

Ma, X., Li, C., Meng, H., Du, L., Wang, Q., Wang, Y., . . . Li, T. (2010). Premorbid tobacco smoking is associated with later age at onset in schizophrenia. *Psychiatry Res*, 178(3), 461-466. doi: 10.1016/j.psychres.2009.08.014

S0165-1781(09)00320-5 [pii]

Saha, S., Scott, J. G., Varghese, D., Degenhardt, L., Slade, T., & McGrath, J. J. (2011). The association between delusional-like experiences, and tobacco, alcohol or cannabis use: a nationwide population-based survey. *BMC Psychiatry*, 11, 202. doi: 10.1186/1471-244X-11-202

1471-244X-11-202 [pii]

Synopsis for EU-GEI Publication

Data needed for the study: Demographics (gender, age, ethnic, social class, marital status, years of education, SES), Tobacco questionnaire, Nos-DUP (diagnosis, age of onset of psychosis), medication

Plan for statistical analysis (overall strategy):

- 1) Sociodemographic analyses will be performed with χ^2 and t-tests. We will perform comparisons with t-student on the following: 1) Patients and controls in daily and frequent use of tobacco, 2) tobacco users and non-users in age of onset of psychosis and 3) patients with different patterns of tobacco use across the EU-GEI sites.
 - a) ANCOVA analysis will be used to estimate if differences in patterns of tobacco use reflect in differences in the likelihood to suffer from a first episode psychosis.
 - b) We will perform factorial ANCOVAs (adjusted for gender, dose of antipsychotic medication and all other relevant confounders like use of cannabis or other drugs, urbanicity, migration, etc.) including tobacco use as a fixed factor and age of psychosis onset as dependent variable. We will perform corrections for multiple tests.

Other analyses/methods: None

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

IPR check:

Timeframe:

Additional comments: