

Synopsis no.: S2.50

Preliminary title:

Tobacco use of subjects with a first psychotic episode and the association with symptoms

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Publication category: 1

Working and writing group:

Hille de Vries, Jentien Vermeulen, Frederike Schirmbeck, Lieuwe de Haan and WP2 author group.

Work Packages involved: WP2

Partners involved from whom candidate co-authors (*additional to working and writing group*) should be nominated:

Objectives (scientific background, hypothesis, methods, and expected results):

Scientific background

Smoking is an undeniable risk factor for increased somatic morbidity and mortality in both the general population and psychiatric patients. It is consistently found that smoking is more prevalent in patients with psychosis than in the general population [1]. Tobacco use has declined during the past decades in the Western population but the prevalence of smoking in patients with psychosis remains alarmingly high. Self-medication is a popular hypothesis to explain the high prevalence of smoking in patients with psychiatric disorders. It postulates that patients with psychosis derive symptomatic relief from tobacco smoking [2, 3]. The self-medication hypothesis assumes effects on symptoms, cognitive functioning, quality of life, and side-effects of psychotropic medication. Although the self-medication hypothesis is still frequently reported as valid, there is not much evidence that cigarette smoking reduces the severity of (certain) symptoms. So far, conflicting results have emerged regarding cross-sectional differences in the severity of symptoms or quality of life between smoking and non-smoking patients with a psychotic disorder. Besides, one long-term study reported that the number of cigarettes only co-varied with depression scores over time [4]. Another cohort study reported no differences over time between smoking and nonsmoking patients in symptom severity and functioning [5]. The authors of a systematic review about the course of symptom severity and smoking in patients with a psychosis concluded that, due to the lack of large, prospective studies, no definite conclusion could be drawn [6]. In a recently published study we found that smoking in patients and siblings was associated with more severe positive, negative and depressive symptoms and lower quality of life [7]

Here, we aim to examine the associations between smoking and (sub)clinical psychotic and depressive symptoms in a large sample of subjects with a first psychotic episode and healthy

controls.

To the best of our knowledge, this will be the first study to examine these associations in incident patients with a first psychotic episode.

Key questions

Question:

Is current smoking behaviour associated with (sub)clinical psychotic and depressive symptoms?

Methods and expected results

Cross-sectional data collected to assess tobacco use and psychopathology in individuals with a first psychotic episode, siblings and healthy controls will be used. To account for possible confounding effects, we will control for cannabis use, medication, socioeconomic status, childhood trauma and general functioning.

Associations will be investigated with linear regression analyses.

Based on the current literature, we hypothesize that tobacco use is associated with higher symptom levels.

Prospective UHR data needed for the study:

- Tobacco use
- Psychopathology (CAPE, OPCRIT, SIS-R)
- Covariates: socioeconomic status (education (highest level and years), employment and income)), GAF, trauma (CTQ), cannabis and medication use.

Other analyses/methods:

N/A

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

IPR check:

Timeframe:

Month 3: Literature search; obtaining, merging, checking, cleaning of data

Month 6: Completion of statistical analysis and first draft of manuscript

Month 9: Manuscript submission

Additional comments:

N/A

References:

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5. Levander, S., J. Eberhard, and E. Lindstrom, Nicotine use and its correlates in patients with psychosis. *Acta Psychiatr Scand Suppl*, 2007(435): p. 27-32.
6. Cerimele, J.M. and W.J. Katon, Associations between health risk behaviors and symptoms of schizophrenia and bipolar disorder: a systematic review. *General Hospital Psychiatry*, 2013. 35(1): p. 16-22.
7. Vermeulen JM et al. Smoking, symptoms and quality of life: no support for the self-medication hypothesis from a prospective, longitudinal cohort study in patients with psychosis, siblings and healthy controls. In press *Lancet Psychiatry*.