

Synopsis no.: S5.35

Preliminary title:

Tobacco use of subjects at ultra-high risk to develop a first psychotic episode and the association with symptoms.

Contact info for the person(s) proposing the synopsis

Name: Lieuwe de Haan, Frederike Schirmbeck,

Partner no: 8 (University of Amsterdam)

E-mail address: l.dehaan@amc.uva.nl, n.f.schirmbeck@amc.uva.nl

Publication category: 1

Working and writing group:

Hille de Vries, Jentien Vermeulen, Frederike Schirmbeck, Lieuwe de Haan and WP5 author group.

Work Packages involved: WP5

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 and quality of life, and in a large prospective study of subjects at ultra-

high risk to develop a first psychotic episode and healthy controls. To the best of our knowledge, we will be the first to examine the [cross sectional and longitudinal] association between tobacco use and symptoms in subjects at ultra-high risk to develop a first psychotic episode.

Key questions

Question 1.

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

Question 2.

Are smoking status and symptom severity associated longitudinally and is change in tobacco use associated with change in the outcome variables?

Methods and expected results

Cross-sectional and longitudinal data collected to assess tobacco use, psychopathology and in individuals at risk for psychosis 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.

Data will be analysed using linear mixed-effects analyses to examine the relationship between tobacco use and symptom severity. If possible in terms of appropriate fit indices, cross-lagged panel analyses will be used to explore the direction of the association.

Based on the current literature, we hypothesize that tobacco use is associated with higher symptom levels. Furthermore, we expect change in smoking status to be associated with positive symptoms in particular after correcting for confounding factors.

Prospective UHR data needed for the study:

- Tobacco use
- Psychopathology (CAARMS, BPRS, MADRS, SCID, SANS, SPIA)
- 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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