

Is tobacco craving linked to suicidality in schizophrenia? Results from the FACE-Schizophrenia cohort

A. Tessier^{1,2,3}, M. Fatseas^{2,4*}, Y. Dansou¹, O. Godin¹, F. Berna^{1,5}, D. Capdevielle^{1,6}, C. Belmonte^{1,6}, I. Chereau^{1,7}, P-M Llorca^{1,7}, N. Coulon^{1,8}, S. Leigner^{1,8}, T. D'amato^{1,9}, R. Rey^{1,9}, C. Dubertret^{1,10}, J. Mallet^{1,10}, G. Fond^{1,11}, L. Boyer^{1,11}, C. Passerieux^{1,12}, M. Urbach^{1,12}, B. Pignon^{1,13}, F. Schürhoff^{1,13}, A. Szoke^{1,13}; D. Misdrahi^{1,2,3}; the FACE-SZ (FondaMental Academic Center of Expertise for Schizophrenia Group)

¹ Fondation Fondamental, Créteil, France.

² Aquitaine Institute for Cognitive and Integrative Neuroscience (CNRS UMR 5287-INCIA, ECOPSY), University of Bordeaux, Bordeaux, France.

³ Department of University and General Psychiatry, Charles Perrens Hospital, Bordeaux, France.

⁴ Addictology Department, CHU Bordeaux, Bordeaux, France.

⁵ University Hospitals of Strasbourg, Department of Psychiatry, University of Strasbourg, INSERM U1114, Strasbourg, France.

⁶ University Department of Adult Psychiatry, La Colombière Hospital, CHU Montpellier, France.

⁷ CHU Clermont-Ferrand, Psychiatry B department, Clermont-Auvergne University, Clermont-Ferrand, France.

⁸ Psychosocial Rehabilitation Referral Center, Alpes-Isère Hospital, Grenoble, France.

⁹ INSERM U1028, CNRS UMR5292, Lyon Neuroscience Research Center, Claude Bernard Lyon 1 University, Team PSYR2, Le Vinatier Hospital, Bron, France.

¹⁰ AP-HP, Department of Psychiatry, Louis Mourier Hospital, Inserm UMR1266, Institute of Psychiatry and Neuroscience of Paris, University Paris Descartes, Université Paris Diderot, Sorbonne Paris Cité, Colombe, France.

¹¹ Marseille University hospital, Aix-Marseille Univ, School of medicine - La Timone Medical Campus, EA 3279: Department of Epidemiology and Health Economics, Marseille, France.

¹² Versailles Hospital, Department of Adult Psychiatry and Addictology, Paris-Saclay University; DisAP-DevPsy-CESP, INSERM UMR1018, Le Chesnay, France.

¹³ Paris-Est-Créteil University (UPEC), AP-HP, Henri Mondor Hospital, DMU IMPACT, INSERM, IMRB, Translational Neuropsychiatry, Fondation FondaMental F-94010 Créteil, France.

Corresponding author : Melina Fatseas, Addictology Department, CHU Bordeaux, Bordeaux, France, melina.fatseas@u-bordeaux.fr

Abstract

Smoking prevalence in people with schizophrenia is about 3-fold higher compared to both the general population and individuals with other psychiatric disorders. While emerging evidence highlights a correlation between tobacco use and increased suicidal risk, little is known on the role of tobacco addiction as a proximal risk factor for suicidality among patients with schizophrenia as well as the underlying mechanisms. The aim of this study was to investigate the potential associations between tobacco craving, serving as a marker for both diagnosis and severity of tobacco use disorder, and suicidality within an extensive national cohort of outpatients diagnosed with schizophrenia.

One thousand seven hundred and sixty-nine patients were included in the network of the FondaMental Expert Centers for Schizophrenia. The sociodemographic and clinical variables including smoking status, tobacco craving, suicide and addiction-related data, as along with biological variables were analyzed.

Prevalence smoking in this cohort was 52.8%. Following adjustments for relevant clinical factors, smokers were found to be associated with male gender, lower medication adherence, higher triglyceride levels, fewer prescriptions for clozapine, and lifetime alcohol and cannabis use disorders. Mostly, tobacco craving exhibited correlations with age, disease severity, comorbid depression, poor adherence, anticholinergic prescriptions, and lifetime alcohol use disorder. In relation to suicide, higher tobacco craving scores were associated with increased suicidal ideation, a higher frequency of suicide attempts, and an elevated suicide score. Results from the multivariate analysis supporting the association between craving and suicide revealed that suicidal ideation, suicide attempts, and overall suicide scores were all significantly mediated by a lifetime alcohol use disorder. These findings have significant clinical

implications regarding the impact of both tobacco and alcohol use disorders on suicidality and underscore the need for further exploration within the dual disorder research domain and advocate for more integrated care approaches for addictive disorders within this population.