

## The Effect of Tobacco Dependence On Severity Outcomes Among Suicide Attempters

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**Background:** Smoking and suicidal behavior are two major public health problems associated in epidemiological and clinical studies. Smoking has been associated with suicidal ideation, suicide attempts, and suicide, independently of mental disorders. Yet, the mechanism that links smoking and suicidal behavior is unknown. We investigated the relationship between the level of tobacco dependence and the severity of suicidal outcomes among suicide attempters.

**Methods:** We examined a sample of 542 adult suicide attempters to compare the characteristics of the attempts depending on the level of tobacco dependence. All participants had made a suicide attempt in the previous two years (criterion for suicidal behavior disorder). Level of tobacco dependence was assessed with the Fagerstrom test. Diagnoses were ascertained with the Mini International Neuropsychiatric Interview and suicidal behaviors were assessed, among others, with the Risk Rescue Rating Scale and the Suicidal Intent Scale. Impulsivity was measured with the Barratt Impulsiveness Scale.

**Results:** Independently of potential confounders, heavy smokers (Fagerstrom $\geq$ 7) made more attempts and reached higher medical lethality than non-smokers (OR=2.42; 95%CI= 1.43-4.11, p=0.001, and OR=1.88; 95%CI=1.09-3.24; p=0.03, respectively). Light smokers (Fagerstrom<7) were not associated with features of severity in their suicide attempts. The combination of high impulsiveness and severe tobacco dependence showed an additive effect on the number of suicide attempts (OR=3.55; 95%CI= 1.75-7.21).

**Discussion:** A high level of tobacco dependence could indicate a specific vulnerability leading to more severe suicide attempts, which was only partially explained by impulsivity traits.