

Smoking and Suicide Mortality Risk in Alcohol-Dependent Individuals

To the Editor: Hung et al¹ recently reported their findings on the risk and protective factors for suicide mortality among persons with alcohol dependence in a nested case-control study. They identified in the literature a number of factors demonstrated to be associated with suicide mortality, such as gender, continued drinking, mood disorders, hopelessness, history of suicidal behaviors, interpersonal difficulties, and social disadvantage. Variables were collected by retrospective chart reviews. The authors found 2 risk factors (auditory hallucination, prior suicide attempt) and 3 protective factors (financial independence, being married, physical illness) for suicide mortality. Unfortunately, Hung et al¹ neglected to consider tobacco smoking as a possible risk factor for suicide.

Prevalence of tobacco smoking among individuals in treatment for alcohol use disorder is as high as 75%² and is characterized by heavy smoking.³ First demonstrated in 1976 by Doll and Peto,⁴ the robust association between smoking and suicide mortality has been established⁵ and is dose-dependent, with an estimated increase in risk of suicidal death of 24% for each increment of 10 cigarettes smoked per day.⁵ Although the underlying mechanism of the greater suicide risk in smokers is not currently fully elucidated,⁶ the statistical association has been shown to withstand adjustments for psychiatric and substance use-related confounding factors,⁷ and more specifically alcohol use.⁸⁻¹⁰ We suspect that smoking may have been poorly documented in the medical records of cases and controls, leading to the omission of this major confounder from Hung and colleagues' data analysis.¹

Although we recognize the importance of this study in drawing attention to the elevated risk of suicide among persons with alcohol dependence, we regret that it missed disentangling the contributions of tobacco smoking and alcohol dependence to the increased suicide risk in this population. We would like to emphasize the importance of systematically documenting smoking behavior in medical records of individuals with psychiatric and addictive disorders, because tobacco smoking can be considered as an aggravating condition not only among individuals with alcohol dependence,^{11,12} but also more widely among individuals with a psychiatric condition.^{13,14}

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Drs Hung and Kuo Reply

To the Editor: Aubin and colleagues recently commented on our findings¹ on the risk and protective factors for suicide mortality in patients with alcohol dependence, drawing attention to omission of tobacco smoking as a potential risk factor.

Indeed, the association of smoking and suicide mortality has received increased attention.² In another study, we showed evidence of excess suicide mortality among young adults exposed to cigarette smoking.³ In the present study,¹ we would certainly have included smoking as a candidate predictor if it had been well documented in the medical records. In the limitations section, we stated that data on certain predictors of suicide mortality were unavailable. Smoking status is included among those factors.

Nonetheless, the primary objective in identifying risk factors for suicide is to effectively screen for high-risk individuals and intervene. Therefore, risk factors with good specificity are more desirable. In our present study,¹ we argued that depression is too prevalent in patients with alcohol dependence to serve as a useful risk factor.⁴ Similarly, the prevalence of tobacco smoking in alcohol use disorder is as high as 75%.⁵ This factor would be too sensitive and not sufficiently specific to predict suicide. Further research is needed to clarify the role of smoking as a predisposing factor in suicide mortality in patients with alcohol dependence. In addition, attempts to identify novel risk factors with better predictive power, such as a combination of childhood adversities and aggressive behaviors,⁶ are also warranted.

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