

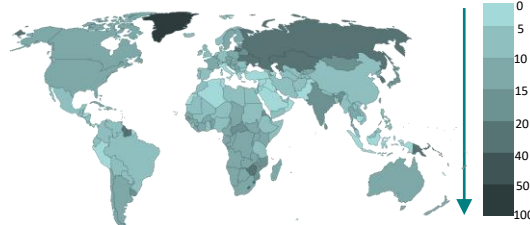
The link between tobacco use and suicidal behaviours

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In June 2021, Echeverria et al¹ published a research paper investigating whether a person’s smoking status could be associated with suicidal behaviours. Here, we discuss the value of these results and whether modifying this factor could enhance patient care.

Tobacco smoking is a common habit and a modifiable risk factor for many conditions
AND...

The annual number of deaths from suicide per 100,000 people (2017)²



World Health Organization: Suicide Data¹

“In 2019, suicide accounted for **1.3% of all deaths** worldwide, making it the **17th leading cause of death** in 2019”

Suicide risk is known to be associated with many social and lifestyle factors, such as financial loss, trauma and drug abuse. However, smoking status is not currently included in most risk assessment scales. Identifying smoking as a modifiable risk factor and intervention provision could be a **promising means for suicide risk mitigation**.

Proposal for the inclusion of tobacco use in Suicide Risk Scales: results of a meta-analysis³

Objective

❖ To assess the relationship between tobacco use and the suicidal spectrum (suicidal ideation, planning, attempts and death).

Methods

- A meta-analysis of **20 prospective cohort studies** with a total of **2,457,864 patients** was performed. Patients were classified as non-smokers (NS), former smokers (FS), or current smokers (CS)
- Relative risks and 95% Confidence Intervals were calculated for each of the four suicidal behaviours.
- Subgroup analysis was performed to determine whether the relative risk differed between male and female smokers.

Results

- ✓ The risk of all four suicidal behaviours **was increased in people exposed to tobacco smoking** compared to non-smokers.
- ✓ Although it is known that men have a higher suicide risk in general, **women were significantly more at risk** than men when compared to their non-smoking gender comparators

Relative risks of suicidal behaviours for smoking status and gender¹

Smoking status/group	Relative risk (95% CI)
Death from suicide (FS)	1.31 (1.13, 1.52)
Death from suicide (CS)	2.41 (2.08, 2.8)
Ideation (FS)	1.35 (1.31, 1.39)
Ideation (CS)	1.84 (1.21, 2.78)
Attempts (FS)	1.27 (0.56, 2.87)
Attempts (CS)	1.71 (0.73, 2.97)
Women	2.51 (2.06, 3.04)
Men	2.06 (1.62, 2.62)
All suicidal behaviours	1.74 (1.54, 1.96)

Our thoughts:

- Since suicidal behaviours are a result of a combination of external factors, as well as genetics, these results should be interpreted with caution.
- Nevertheless, evidence suggests that smoking cessation interventions may decrease the risk of suicidal behaviours. This finding would have a substantial effect on clinical practice and suicide risk mitigation.
- Smoking is often used as a **coping mechanism** in patients with mental health conditions. However, this evidence shows that it may also increase suicide risk, suggesting a **bi-directional causality between smoking and mental health**.

1. Echeverria L et al., Proposal for the Inclusion of Tobacco Use in Suicide Risk Scales: Results of a Meta-Analysis. *Int J Environ Res Public Health*. 2021. 18(11):6103.
2. World Health Organisation (WHO). Suicide worldwide in 2019: global health estimates. Geneva; 2021.
3. Ritchie H et al. Suicide. *Our World in Data*. 2015. Online resource Available at: <https://ourworldindata.org/suicide>
4. Henderson E. Study delves into the link between smoking and suicidal behaviours. *News Medical Life Sciences*. 2021.