



## King's Research Portal

DOI:  
[10.1111/add.14463](https://doi.org/10.1111/add.14463)

*Document Version*  
Peer reviewed version

[Link to publication record in King's Research Portal](#)

*Citation for published version (APA):*

Kalk, N. J., Kelleher, M. J., Curtis, V., & Morley, K. I. (2018). Addressing substance misuse: a missed opportunity in suicide prevention. *Addiction*. <https://doi.org/10.1111/add.14463>

### **Citing this paper**

Please note that where the full-text provided on King's Research Portal is the Author Accepted Manuscript or Post-Print version this may differ from the final Published version. If citing, it is advised that you check and use the publisher's definitive version for pagination, volume/issue, and date of publication details. And where the final published version is provided on the Research Portal, if citing you are again advised to check the publisher's website for any subsequent corrections.

### **General rights**

Copyright and moral rights for the publications made accessible in the Research Portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognize and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the Research Portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the Research Portal

### **Take down policy**

If you believe that this document breaches copyright please contact [librarypure@kcl.ac.uk](mailto:librarypure@kcl.ac.uk) providing details, and we will remove access to the work immediately and investigate your claim.

## Addressing substance misuse: a missed opportunity in suicide prevention

Word count: 998

References: 19

### Authors:

Dr Nicola J. Kalk - Consultant Psychiatrist, South London and Maudsley NHS Foundation Trust/Clinical Lecturer, National Addiction Centre, Institute of Psychiatry, Psychology and Neuroscience, King's College London

Dr Michael J. Kelleher - Clinical Lead, Lambeth Addictions Consortium, South London and Maudsley NHS Foundation Trust/Public Health England Advisor Alcohol and Tobacco

Dr Vivienne Curtis – Consultant Psychiatrist, Centralised Place of Safety, South London and Maudsley NHS Foundation Trust/Honorary Consultant Senior Lecturer, Institute of Psychiatry, Psychology and Neuroscience, King's College London

Dr Katherine I. Morley – Senior Lecturer, National Addiction Centre, Institute of Psychiatry, Psychology and Neuroscience, King's College London

**Corresponding author:** Nicola Kalk, nicola.kalk@kcl.ac.uk

**Acknowledgements:** The authors would like to thank Dr Patricia Campbell for her help translating the Norwegian suicide policy.

*Public policy on suicide prevention is missing an opportunity to address a major modifiable risk factor for suicide: substance intoxication and misuse. Although national suicide prevention policies acknowledge substance misuse as a risk factor, few include strategies address it.*

A recent international systematic review of suicide prevention policy encompassing 10 years of research did not mention interventions targeting substance misuse at all (1). Of the 13 countries included in the review, only nine were found to have a national suicide prevention strategy, seven of which were accessible online. The majority of policies on suicide prevention did not differentiate between alcohol, illicit drug classes, and licit drugs susceptible to misuse, or provide tailored approaches. Thus, while all published national suicide prevention policies listed substance use as a risk factor, only three had policies within the suicide prevention policy specifically addressing substance misuse (2–4). All three policies addressed access to treatment for substance addiction, but two of the three did not refer to specific substances. Only Norway's policy - the most detailed - referred to drug-specific strategies, such as prevention of heroin overdose (3). No national policies, including the recently released consultation draft of a UK suicide prevention strategy (5), currently consider the impact of acute intoxication or advocate the implementation of population measures to reduce substance use as part of suicide reduction.

This article has been accepted for publication and undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process which may lead to differences between this version and the Version of Record. Please cite this article as doi: 10.1111/add.14463

Dependence on alcohol and/or illicit drugs is associated with a substantial increase in suicide risk. Alcohol dependence is second only to depression in contributing to the global burden of disability adjusted life years lost to suicide, accounting for around 13% (6). Although psychostimulant and opioid dependence contribute a smaller fraction, the relative risk conferred by dependence on these substances is substantial: 8.2 for psychostimulant dependence and 6.9 for opioid dependence. The relative risk conferred by cocaine dependence specifically is particularly striking: 16.9 (6). These risks are modifiable; engagement with treatment, and length of contact with treatment confers a reduction in risk of suicide in patients who are substance dependent (7).

Dependence alone does not account for all suicide risk attributable to alcohol and drug consumption; acute intoxication is also important. Suicide rates increase with per capita alcohol consumption (8) and are associated with a culture of drinking to intoxication (9). The World Health Organisation (WHO) estimates that every fifth suicide would be prevented if alcohol were not consumed in the population (9). According to an international meta-analysis, acute alcohol intoxication is associated with a six-fold increased risk of suicidal acts (10). A similar effect is observed for sedatives and opioids (11) but the evidence regarding acute stimulant intoxication is mixed (11). Binge consumption, when not played out against a background of alcohol or drug dependence, is less likely to be identified and treated as a clinically relevant problem.

Substance abuse and dependence is a recognised risk factor in patients with comorbid psychiatric diagnoses, which confer increased baseline risk (12). Alcohol use disorder, as evidenced by contact with alcohol services, has been estimated to increase the risk of suicide in people with schizophrenia, bipolar disorder and depression by a factor of two and personality disorder by 2.7 times (13). Other substance use disorders as evidenced by contact with drug services, also increase risk of suicide in patients with schizophrenia, depression and personality disorder by two to three times (13). There is little evidence regarding the impact on suicide risk of less severe forms of substance use that may not come to the attention of specialist providers. A single study found patients with mood disorder who attempted suicide while intoxicated with alcohol were likely to use more lethal means than those who were not (14).

The WHO advocates population approaches to reducing alcohol consumption in its suicide prevention strategy (9). There is international evidence that population level alcohol policies reduce suicide in men in general (increasing alcohol prices through taxation or other means, reducing outlet density), and in young men (raised minimum legal drinking and no-tolerance drink-driving laws) (15). Such policies do not appear to affect suicide in women. It is not clear how such population-level approaches could be designed or implemented for illicit drugs, as restriction already exists in the form of criminalisation.

National suicide prevention policies need to include strategies that explicitly address risk associated with both acute drug and alcohol intoxication, as well as dependence. This should incorporate overall improvement in access to addiction services, development of strategies that address risks particular to different substances, and public education regarding the increased risk of suicide associated with both acute intoxication and chronic use. Intoxicated patients should not be excluded from appropriate psychiatric care when in

crisis (16). Strategies to reduce the availability of alcohol should be incorporated more widely. Given the strength of association between drug and alcohol use and suicide risk, suicide prevention strategies that do not address this cannot be considered comprehensive.

Suicide prevention policies need to consider individual-level strategies as well as population-level strategies. Within substance use services, suicide risk assessment is not always routine and information about mental health comorbidity is not routinely collected (17). Structured risk assessment has been criticised for having limited predictive power (18, 19) and alienating patients if not undertaken sensitively. However, such information is useful in, for example, determining decisions regarding medication supervision and should be explicitly recommended.

Suicide risk associated with acute intoxication should also be considered, but there is a dearth of research on which to base policy. Our clinical experience is that acute intoxication is a dynamic risk factor and suicidality often subsides as intoxication resolves, but medium-term risk and what constitutes appropriate onward care for such patients is unclear. Acutely intoxicated individuals are not all dependent or suffering from a substance use disorder that is severe enough to meet the threshold for specialist addictions care (16, 17). If we do not develop pathways for such patients, particularly those who engage in recurrent suicidal acts, we will miss an important opportunity for preventing suicide.

## References

1. Zalsman G, Hawton K, Wasserman D, van Heeringen K, Arensman E, Sarchiapone M, et al. Evidence-based national suicide prevention taskforce in Europe: A consensus position paper. *Eur Neuropsychopharmacol*. 2017;27(4):418–21.
2. Ministry of Health. New Zealand Suicide Prevention Action Plan 2013 – 2016. 2013;(May):8.
3. Helsedirektoratet. Handlingsplan for forebygging av selvmord og selvskading 2014-2017. 2014.
4. US Surgeon General. 2012 National Strategy for Suicide Prevention: 2012.
5. National Institute for Health and Care Excellence. Preventing suicide in community and custodial or detention settings - draft consultation guideline. 2018;(February):1–34.
6. Ferrari AJ, Norman RE, Freedman G, Baxter AJ, Pirkis JE, Harris MG, et al. The Burden Attributable to Mental and Substance Use Disorders as Risk Factors for Suicide: Findings from the Global Burden of Disease Study 2010. Baune BT, editor. *PLoS One* [Internet]. 2014 Apr 2;9(4):e91936. Available from: <http://www.webcitation.org/72k79fLrM>
7. Ilgen MA, Harris AHS, Moos RH, Tiet QQ. Predictors of a suicide attempt one year after entry into substance use disorder treatment. *Alcohol Clin Exp Res*. 2007;31(4):635–42.

8. Norström T, Rossow I. Alcohol consumption as a risk factor for suicidal behavior: a systematic review of associations at the individual and at the population level. *Arch suicide Res* [Internet]. 2016;20(4):489–506. Available from <http://www.webcitation.org/72bCLpzw2>
9. World Health Organization. Preventing suicide. 2014.
10. Borges G, Bagge CL, Cherpitel CJ, Conner KR, Orozco R, Rossow I. A meta-analysis of acute use of alcohol and the risk of suicide attempt. *Psychol Med*. 2017;47(5):949–57.
11. Bagge CL, Borges G. Acute Substance Use as a Warning Sign for Suicide Attempts. *J Clin Psychiatry* [Internet]. 2017;78(06):691–6. Available from: <http://www.webcitation.org/72bCZjkbM>
12. Windfuhr K, Kapur N. Suicide and mental illness: A clinical review of 15 years findings from the UK National Confidential Inquiry into Suicide. *Br Med Bull*. 2011;100(1):101–21.
13. Østergaard MLD, Nordentoft M, Hjorthøj C. Associations between substance use disorders and suicide or suicide attempts in people with mental illness: a Danish nation-wide, prospective, register-based study of patients diagnosed with schizophrenia, bipolar disorder, unipolar depression or personal. *Addiction* [Internet]. 2017;112(7):1250–9. Available from: <http://www.webcitation.org/72k7NUOA7>
14. Sher L, Oquendo M a, Richardson-vejlgard R, Makhija NM, Posner K, Mann JJ, et al. Patients With Mood Disorders. 2013;43(10):901–5.
15. Xuan Z, Naimi TS, Kaplan MS, Bagge CL, Few LR, Maisto S, et al. Alcohol Policies and Suicide: A Review of the Literature. *Alcohol Clin Exp Res*. 2016;40(10):2043–55.
16. NICE. Co-existing severe mental illness and substance misuse: community health and social care services. 2016.
17. Ross J, Darke S, Kelly E, Hetherington K. Suicide risk assessment practices: A national survey of generalist drug and alcohol residential rehabilitation services. *Drug Alcohol Rev*. 2012;31(6):790–6.
18. Quinlivan L, Cooper J, Meehan D, Longson D, Potokar J, Hulme T, et al. Predictive accuracy of risk scales following self-harm: Multicentre, prospective cohort study. *Br J Psychiatry*. 2017;210(6):429–36.
19. Ness J, Hawton K, Bergen H, Cooper J, Steeg S, Kapur N, et al. Alcohol use and misuse, self-harm and subsequent mortality: an epidemiological and longitudinal study from the multicentre study of self-harm in England. *Emerg Med J* [Internet]. 2015;32(10):793–9. Available from: <http://www.webcitation.org/72k7Tn68w>