

A multi-methods study to understand the relationship between alcohol and suicide in Aotearoa New Zealand

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Introduction and Aims: *Alcohol is a significant distal and proximal risk factor for suicide. Despite New Zealand having high rates of both suicide and risky drinking, local data on this association are limited and the national suicide prevention strategy has no alcohol-related interventions. Thus, we aimed to:*

1. *Test the distal association between alcohol use disorder and suicidal ideation*
2. *Quantify and characterise acute alcohol use within suicide*
3. *Determine if historic alcohol policy changes impacted suicide rates*

Design and Methods: *Christchurch Health and Development Study data were used to test the association between alcohol use disorder and suicidal ideation, while controlling for childhood and time-dynamic co-variates. Coronial and toxicological data (2007-2020) were utilised to quantify acute alcohol use in suicide. Interrupted time series modelling was undertaken to determine the effect of alcohol policy changes on suicide rates, by sex and age-group.*

Results: *1) The association between alcohol dependence and suicidal ideation was significant before and after adjustment (AOR=1.52, 95%CI 1.04-2.23), when compared to no alcohol disorder, and remained significant when compared to alcohol abuse. 2) 26.6% of suicide deaths involved acute alcohol use. No difference in this association was found by sex, however, ethnicity differences were identified (Māori AOR=1.20, 95%CI 1.01-1.42, Pacific AOR=1.46, 95%CI 1.10-2.00). 3) Preliminary analysis suggests the introduction of a 'zero BAC' for drivers under 20 was associated with decreased suicide rates for young males.*

Discussions and Conclusions: *Alcohol is a significant distal and proximal risk factor for suicide in New Zealand, with health equity implications.*

Implications for Practice or Policy (optional): *New Zealand's suicide prevention strategy should include interventions to reduce risky alcohol consumption at an individual and population level, as this represents a modifiable risk factor for suicide. The upcoming review of the Sale and Supply of Alcohol Act should consider impacts of policy decisions on suicide and suicidal behaviour.*

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