Suicide and Prior Contact with Police concerning Alcohol and Drug Use

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Suicide prevention

» Role of other agencies
» Police as a gatekeeper\(^1\)/ guardian role in society\(^2\)
» Evidence-informed practice:
  • A three-year research programme on mental health and suicide
  • This particular study focuses on the associations between suicide and prior contact with police, with a specific focus on alcohol/drug-related contact

Risk factors for suicide

Risk factors:

- Socio-demographic variables
- Stressful life events
- Mental health and physical health
- Long term, regular use of *alcohol/drug* …

Adding this perspective into the current study on prior police contact and suicide

- Events relating to use of *alcohol/drug*
NZ Police NIA database

- Name
- Address
- Date of birth
- Ethnicity
- Gender
- Role in an event as a victim, suspect, offender, witness, informant, next of kin...
- + many other fields

Records of all working age men who had a ‘1S sudden death’ between 2007 and 2012

Death by suicide

Death by other causes (e.g. accident, natural cause)
Suicide Mortality Review Committee

» Funded by Ministry of Health
» Managed by Health Quality and Safety Commission
» 1-year feasibility project
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Suicide Mortality Review Committee

Death by suicide

Death by other causes (e.g. accident, natural cause)
Sample size = 8,376

1S Suicide 
(n=1,140)

1S Not suicide 
(n=7,236)

Age distribution:
- 25-34 years: 30%
- 35-44 years: 29%
- 45-54 years: 31%
- 55-65 years: 10%
- 55-65 years: 22%
- 35-44 years: 25%
- 45-54 years: 37%
- 55-65 years: 16%

Ethnicity distribution:
- European: 66%
- Māori: 15%
- Pacific: 3%
- Asian: 3%
- Other: 1%
- Missing: 12%
- European: 47%
- Māori: 23%
- Pacific: 8%
- Asian: 4%
- Other: 17%
- Missing: 17%
Analysis 1: How does prior contact with police relate to suicide?

» Compare the *odds of death by suicide* by whether the person had prior contact with police for a specific event type

<table>
<thead>
<tr>
<th>Code</th>
<th>Code name</th>
<th>Description</th>
<th>Examples</th>
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| 1X   | Threatens/ attempts suicide | Threaten to suicide or has made a suicide attempt                           | • A person expressing intention to suicide  
• A person exhibiting self-harm behaviours                                               |
| 1M   | Mental health       | Based on the subjective judgement of the attending officer that an individual is affected by mental health issues (not clinically diagnosed) | • A person with known/probable mental health issue exhibiting unusual behaviours in public place  
• A person with known/probable mental health issue requiring assistance                |
| 1K   | Intoxicated in public place | Based on the subjective judgement of the attending officer that an individual is intoxicated, under the influence of alcohol, drugs or other substances | • A person who are at risk of harming oneself or others under the influence of alcohol, drug or other substances  
• An intoxicated person requiring assistance                                            |
Method

» Extracted information from NIA
» Outcome variable = Cause of sudden death – suicide?
» Compared the odds of death by suicide by whether the individuals had prior contact with Police for a specific occurrence type
  • E.g. compared those who had a prior 1X Threatens/attempts suicide contact versus those who had no prior 1X contact.
Proportions and odds ratios (ORs)

1X Threatens/ attempts suicide

- Suicide
- Other causes of sudden death

No prior 1X

- Suicide
- Other causes of sudden death
Proportions and odds ratios (ORs)

OR: 7.66 (6.07-9.67)

“Those who had a prior threatened/attempted suicide contact were 8 times more likely to die by suicide, than those who had never had a 1X contact with Police”
Proportions and odds ratios (ORs)

OR: 7.66 (6.07-9.67)

“Those who had a prior threatened/attempted suicide contact were 8 times more likely to die by suicide, than those who had never had a 1X contact with Police”

Adjusted OR: 6.05 (4.75-7.70)

“After controlling for age and ethnicity, those who had a prior threatened/attempted suicide contact were 6 times more likely to die by suicide, than those who had never had a 1X contact with Police”
Proportions and odds ratios (ORs)

OR: 7.66 (6.07-9.67)
Adjusted OR: 6.05 (4.75-7.70)

OR: 2.12 (1.51-2.93)
Adjusted OR: 1.83 (1.28-2.56)

OR: 1.47 (0.95-2.38)
Adjusted OR: 1.75 (1.14-2.86)
Analysis 2: How does 1X involving alcohol relate to suicide?

» Compare the odds of death by suicide by whether the person had a previous 1X threatens/attempt suicide involving alcohol
Method

» Used a list of keywords to identify use of alcohol in 1X occurrences:
  • Alcohol
  • Drunk
  • Intox*
  • Beer
  • Wine
  • Liquor
  • 1K
  • Drink
  • Drank
  • Consume
  • Sober
  • Bottle

» Outcome variable = Cause of sudden death – suicide or other causes?

» Compared the odds of having a suicide death by whether the individuals has had a previous 1X threatens/attempts suicide involving alcohol
Proportions and odds ratios (ORs)

OR: 7.66 (6.07-9.67)
Adjusted OR: 6.05 (4.75-7.70)
Proportions and odds ratios (ORs)

1X Threatens/ attempts suicide
- OR: 7.66 (6.07-9.67)
  - Adjusted OR: 6.05 (4.75-7.70)

1X involving alcohol
- OR: 6.37 (3.86-10.46)
  - Adjusted OR: 4.85 (2.90-8.08)

1X not involving alcohol
- OR: 8.20 (6.40-10.54)
  - Adjusted OR: 6.48 (5.01-8.40)
Summary of findings

» There is an association between prior contact with police and suicide – however the relationship differed by event type

» 1X threatens/attempts suicide is a strong predictor of suicide
  • e.g. those who had a prior 1X contact were 6 times more likely to die by suicide (after adjusting for age and ethnicity)
  • 1X NOT involving alcohol a stronger predictor than 1X involving alcohol

» 1K intoxication in public place is negatively associated with suicide
Strengths and limitations

» Strengths
  • First NZ study to examine the relationship between suicide and prior Police contact in depth
  • Analysed occurrence types separately
  • Had a comparison group
  • Verified suicide

» Limitations
  • Used administrative data that were not collected for research purposes
  • Restricted sample
Story so far…

» Implications for operational practices:
  • Assessing history of police contact is crucial
  • Among the event types included in the model, *1X attempts/threatens suicide* was the strongest predictor
  • Characteristics of *prior 1X attempts/threatens suicide* help identifying risk for suicide

» Implications for research activities:
  • Administrative data collected by Police (and many other agencies) open up opportunities for research and evaluation
Next steps

» Extract info from narratives to:
  • Identify specific roles of alcohol in *1X attempts/threatens suicide* involving alcohol
  • Identify association between *1X attempts/threatens suicide* involving drug use and suicide
  • Identify proportion and characteristics of suicides that are precipitated by alcohol/drug use

» Explore the potential of developing an index on suicide risk based on police contact history

» Extend the analysis to other priority groups in suicide prevention, e.g. Māori youth