Alcohol, Drugs and Suicide.

Interactions between misuse in the life course and at the time of death

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Background: Substance misuse is associated with suicide

- Substance misuse is a key risk factor in suicide
- Impaired reasoning and perception are commonly implicated
- Relatively little is known about the relationship between lifetime misuse and misuse in suicide

FOR PREVENTION....
How does substance misuse in life, relate to substance misuse in death?
Method: setting for study

High prevalence of mental health problems in NI

Inflated use of anxiolytics and anti-depressant drugs

Rates of suicide have risen over the past 15 years

Understanding Suicide Project (2010-2014)

A PIONEERING APPROACH USING MATCHED CORONER AND GP RECORDS

The research examined people who died by suicide 2007-2009

- Coroner’s records
  - Pathology reports on blood alcohol (>80mg per ml)
  - Blood toxicology ‘non-therapeutic’ substance misuse

- Help seeking from the GP across the lifespan

Phase 1: Audit of two years Coroners Records
- 403 Individuals died by Suicide

Phase 2: Audit of 360 GP Records

Phase 3: Qualitative interviews with relatives n=78
### Description of Cohort
(all confirmed suicide deaths 2007-2009)

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>81%</td>
<td>325/403</td>
</tr>
<tr>
<td>Age range</td>
<td>11-83</td>
<td></td>
</tr>
<tr>
<td>Mean age</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td>49%</td>
<td>196/403</td>
</tr>
<tr>
<td>Employment</td>
<td>38%</td>
<td>155/403</td>
</tr>
<tr>
<td>Urban, Intermediate, Rural</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40% urban</td>
<td>32% intermediate</td>
<td>28% rural</td>
</tr>
<tr>
<td>Help Seeking History</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consulted the GP in 12 months</td>
<td>82%</td>
<td>296/361</td>
</tr>
<tr>
<td>of these with mental health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>concerns</td>
<td>71%</td>
<td>209/296</td>
</tr>
<tr>
<td>More than six consultations</td>
<td>50%</td>
<td>181/361</td>
</tr>
<tr>
<td>(mean 5.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No mental health diagnosis</td>
<td>41%</td>
<td>148/361</td>
</tr>
<tr>
<td>No secondary or tertiary treatment</td>
<td>46%</td>
<td>167/361</td>
</tr>
<tr>
<td>at death</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In receipt of mental health</td>
<td>50%</td>
<td>182/361</td>
</tr>
<tr>
<td>prescription</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NB: EXCLUDES COMMUNITY / VOLUNTARY SECTOR SUPPORT**
Substance misuse data

Blood Alcohol content
98% (395/403) TESTED

Drug misuse
54% (218/403) TESTED

Blood alcohol results

Overall, 51.6% (204/395) tested positive
Of these -

93% >10 mg per 100 ml
39.2% >80 mg per 100 ml (UK drink driving limit)
27.1% >160 mg per 100ml

33.4% had sought help for alcohol problems
23.6% in the 12 months prior to death
Help-seeking and alcohol at death

Blood toxicology results (drug misuse)

54% of confirmed suicides were tested (218/403)

- Substance misuse defined as;
  - Any illicit substance detected
  - Any “non-therapeutic” levels of prescription drug detected

- 37% had misused substances at time of death

- 23.4% had sought help for drug misuse
- 12.8% in the 12 months prior to death
Blood toxicology testing

54% (218/403) Tested for drug misuse

- No differences in likelihood of testing for;
  - gender
  - number of drugs prescribed
  - treatment status at death
  - mental health diagnosis
  - history of help seeking for alcohol misuse
  - rural / urban setting
  - prior suicide attempts

- Likelihood of pathologist testing was related to;
  - method of suicide
  - history of help seeking for drug misuse
  - age

Factors in testing for drug misuse

METHOD
  Overdoses were 14 times more likely than hangings to be tested

HISTORY
  History of drug misuse twice as likely to be tested

AGE
  Young people were significantly more likely to be tested for drug misuse

NB: No difference across age in the detection of drug misuse
Help seeking and drug misuse at death

Discussion

- Relationship between suicide and substance misuse is not simple
- Amongst those with no history of misuse, positive results were found
- Amongst those with a history of misuse, positive results were found
- Amongst those with a history of misuse, negative results were found
- Some mechanisms associated with substance misuse as a risk factor for suicide may remain even in periods of abstinence
Who gets a blood toxicology test?

- No legal requirement for testing
- International guidelines differ
- Pathologist and coroner discretion

Why?

- Remit is biological cause of death

Implications

- Important to better understand the mediating factors involved in substance misuse and suicide, including the role of impaired reasoning and perception at the time of a suicidal act

- In hangings (76% in this cohort) within an exclusively medical approach to cause of death, the associated socio-psychological context surrounding suicide may be diminished

FOR PREVENTION

- Changes in ethos, regulations and guidelines in suicide pathology could facilitate further bio-psycho-social research
Thank you

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...is a forum that encourages debate on a wide range of research findings, with the overall aim of promoting evidence-based policy and law-making within Northern Ireland.