



Knowledge Exchange Seminar Series (KESS)

...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



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?



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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



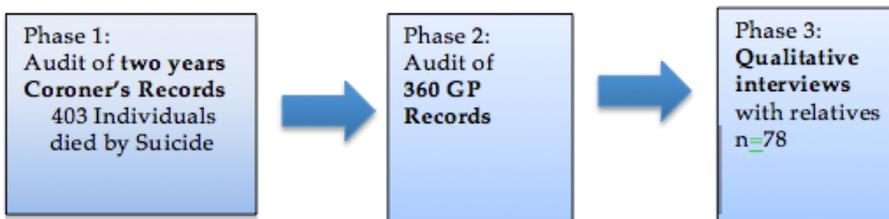
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Understanding Suicide Project (2010-2014)

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



Description of Cohort

(all confirmed suicide deaths 2007-2009)

81% (325/403) male

Aged between 11 and 83 years (mean age of 39)

49% (196/403) married or cohabiting

38% (155/403) employed

40% urban, 32% intermediate, 28% rural



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Help Seeking History

82% (296/361) consulted the GP in 12 months prior to suicide
of these 71% (209/296) had presented with mental health concerns

50% (181/361) more than six consultations (mean 5.7)

41% (148/361) no mental health diagnosis

46% (167/361) no secondary or tertiary treatment at death

50% (182/361) in receipt of mental health prescription

NB: EXCLUDES COMMUNITY / VOLUNTARY SECTOR SUPPORT



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Substance misuse data



Blood Alcohol content
98% (395/403) TESTED

Drug misuse
54% (218/403) TESTED



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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



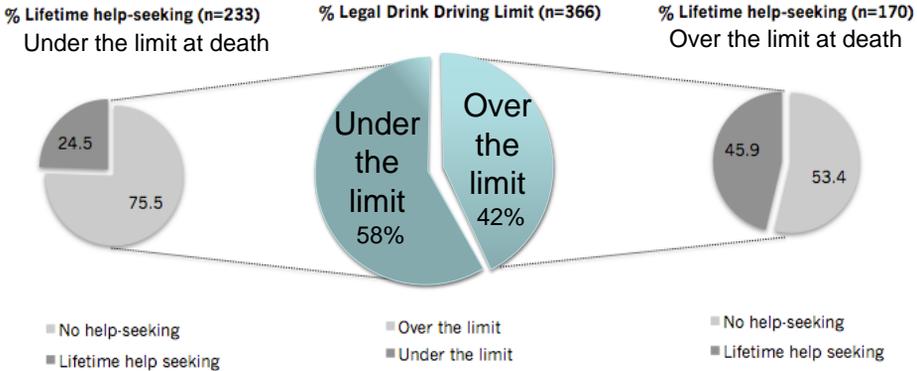
33.4% had sought help for alcohol problems
23.6% in the 12 months prior to death



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Help-seeking and alcohol at death

Figure 1. Alcohol* at time of death and history of help-seeking



*>80ml per 100mg drink driving limit

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Blood toxicology results (drug misuse)

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

◆ Substance misuse defined as;

- Any illicit substance detected
- OR
- 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



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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



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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

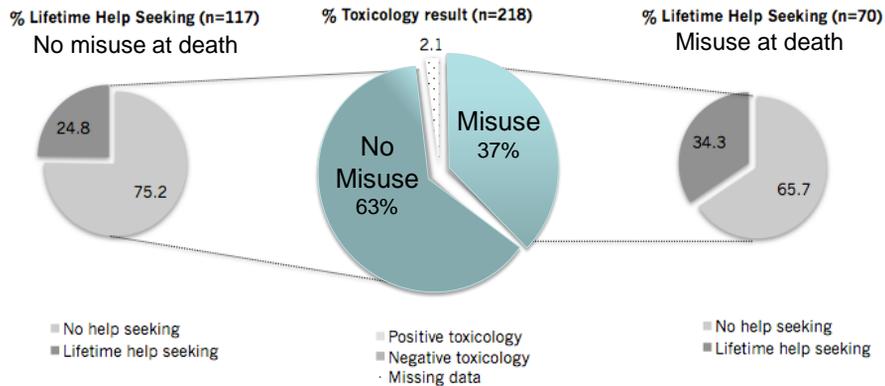
NB: No difference across age in the detection of drug misuse



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Help seeking and drug misuse at death

Figure 2. Substance misuse* at time of death and history of help seeking



*Positive toxicology result; characterised by presence of prescribed substance(s) beyond therapeutic use or illicit substance(s) detected

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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**



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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



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Thank you



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