

# The association between intentional overdose and same-sex sexual intercourse amongst a cohort of PWID in Melbourne, Australia

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## Introduction

- Both lesbian, gay and bisexual (LGB) people and people who inject drugs (PWID) experience poorer physical and mental health than the general population. Both groups are also at disproportionately high risk of self-harm and suicidal behaviours
- LGB people have been shown to have twice the lifetime risk of suicide attempt as heterosexuals. It is estimated that 3-10% (1) of deaths among heroin users is due to suicide and that 17-47% (2) of PWID report lifetime history of attempted suicide
- Many PWID have life circumstances/histories that predispose them to suicide ideation and attempt
- Homophobic prejudice and discrimination increase suicidal risk for LGB individuals
- However, there is little evidence as to the compounded risk of suicide among LGB PWID



## Methodology

- In this paper, we investigate the predictors of life time experience of intentional overdose amongst a cohort of PWID
- Data is drawn from the Melbourne Injecting Drug User Cohort (MIX) study (N=757, final sample for analysis: N=529)
- We specifically investigated the association between sexual orientation, (ever) formal diagnosis of a mental health condition and intentional overdose

- In the absence of a specific sexual orientation question, we inferred orientation based on sexual behaviour
- We inferred non-heterosexual orientation if participants reported same-sex sexual intercourse (SSI) at any interview.
- Predictors were tested via logistic regression. Significance was set at <0.05

## Regression results

	n (%)	SSI n(%)	Intentional OD (ever) n (%)	OR (95% CIs)	AOR (95% CIs)
<b>Sex</b>					
Male	339 (64)	10 (24)	46 (51)	1	1
Female	190 (36)	31 (76)	45 (49)	1.78 (1.35, 2.34)***	1.59 (0.94, 2.72)
<b>Age (WHO youth definition)</b>					
≤24 years	39 (6)	2 (5)	6 (7)	1	1
>24 years	499 (94)	39 (95)	85 (93)	1.01 (0.61, 1.70)	0.76 (0.25, 2.35)
<b>Indigenous Status</b>					
No	501 (94)	39 (95)	87 (96)	1	1
Yes	26 (5)	2 (5)	4 (4)	0.89 (0.47, 1.67)	0.59 (0.17, 2.14)
Missing	2 (1)	0	0		
<b>Same-sex sexual intercourse</b>					
No	434 (82)		68 (75)	1	1
Yes	41 (8)		15 (16)	2.96 (1.99, 4.41)***	2.79 (1.31, 5.97)**
Missing	54 (10)		8 (9)		
<b>Expelled from school</b>					
No	300 (56)	33 (80)	53 (58)	1	1
Yes	227 (43)	8 (20)	38 (42)	0.99 (0.76, 1.31)	1.20 (0.70, 2.05)
Missing	2 (1)	0	0		
<b>Injecting career</b>					
13 years	196 (37)	20 (49)	37 (41)	1	1
≥14 years	331 (62)	21 (51)	54 (59)	0.86 (0.66, 1.13)	0.76 (0.25, 2.35)
Missing	2 (1)	0	0		
<b>Age of injection initiation</b>					
<15 years	91 (17)	6 (15)	23 (25)	2.11 (1.49, 2.99)***	2.20 (1.15, 4.21)*
15-19 years	312 (59)	23 (56)	41 (45)	1	1
≥20 years	123 (23)	12 (29)	27 (30)	1.85 (1.35, 2.55)***	2.03 (1.09, 3.80)*
Missing	3 (1)	0	0		
<b>Drug of injection initiation</b>					
Heroin	323 (61)	19 (46)	59 (65)	1	1
Methamphetamine	179 (34)	20 (49)	25 (27)	0.70 (0.52, 0.94)*	0.56 (0.31, 0.99)*
Other	25 (4)	2 (5)	7 (8)	1.70 (0.98, 2.93)	1.32 (0.45, 3.87)
Missing	2 (1)	0	0		
<b>Mental health diagnosis (ever)</b>					
No	169 (32)	9 (22)	18 (20)	1	1
Yes	360 (68)	32 (78)	73 (80)	2.54 (1.77, 3.63)***	2.47 (1.31, 4.66)**

\* p-value = <0.05, \*\* p-value = <0.01, \*\*\* p-value = <0.001

## Results

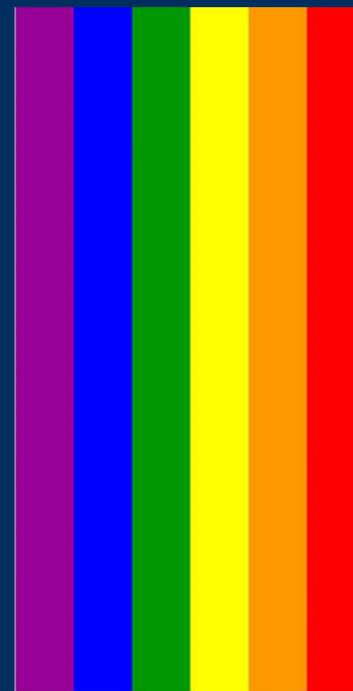
- 41 (8%) participants reported having sexual intercourse with a same-sex partner at any time across interviews
- 360 (68%) participants reported ever being formally diagnosed with a mental health condition
- 91 (17%) participants reported lifetime intentional overdose

- Up to their most recent interview, 15 SSI participants (37%) reported lifetime intentional overdose, compared with 68 participants (16%) who reported heterosexual sexual intercourse
- Up to their most recent interview, 32 SSI participants (78%) also reported ever being diagnosed with a mental health condition, compared with 295 participants (68%) reporting heterosexual sexual intercourse
- In the regression, diagnoses of a mental health condition (AOR=2.47) and SSI (AOR=2.79) significantly increased the odds of lifetime intentional overdose

## Discussion

- We tested the association between SSI, (ever) diagnosis of a mental health condition and lifetime intentional overdose via logistic regression.
- The heightened odds for SSI individuals, who are also PWID, a population known to have increased likelihood of suicide, represents compounded risk

- It has previously been asserted that "being a LGBT PWID is a qualitatively different experience to being a heterosexual PWID" (3). Due to potential isolation from both LGBT and PWID communities, LGBT PWID may reside in a "no-man's land" (3) of peer support
- Interconnectedness of family and support units have been shown to be preventative factors against suicide for LGBT individuals (4). Interventions to facilitate such supports may help to reduce the high risk of intentional overdose seen in this study
- Co-affiliated services targeting concurrent LGBT PWID individuals could ideally assist in this regard



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