Medically verified self-harm and subsequent mental health service contact in adults recently released from prison: a prospective cohort study

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Outline

- Background
- Methods
- Results
- Discussion
- Conclusions

Background

- People released from prison are at increased risk of poor health outcomes
- High rates of self-harm resulting in acute care contact
- Contact with acute care following self-harm is a key opportunity to prevent poor health outcomes and death
- International and national guidelines: every person who presents to acute health services for self-harm should receive timely mental healthcare
- Currently, little is known about mental healthcare contact after self-harm in this marginalised group

Borschmann R, Young JT, Moran P, et al. Ambulance attendances resulting from self-harm after release from prison: a prospective data linkage study. *Soc Psychiatry Psychiatr Epidemiol* 2017: 1-11.
Herbert A, et al. Causes of death up to 10 years after admissions to hospitals for self-inflicted, drug-related or alcohol-related, or violent injury during adolescence: a retrospective, nationwide, cohort study. Lancet 2017; 390(10094): 577-87.
Carter G, Page A, Large M, et al. Royal Australian and New Zealand College of Psychiatrists clinical practice guideline for the management of deliberate self-harm. *Aust N Z J Psychiatry* 2016; **50**(10): 939-1000.
National Institute for Clinical Excellence. Self-harm in over 8s: short-term management and prevention of recurrence. Clinical Guideline (CG16): NICE, 2004.

Methodology overview

Pre-Incarceration

- **Hospital admissions**
- **ED records**
  - ICD-10 Codes
    - Mental Illness
    - Substance use disorder
    - Dual Diagnosis (i.e., both concurrently)

Index Incarceration

- **Baseline survey**
  - within 6 weeks of prison release
- **Prison medical records**
  - ICPC-2 codes

Post-release

- **Ambulance attendances**
  - Self-harm (Free-text)
- **ED presentations**
  - Self-harm (ICD/Free-text)
- **Hospital admissions**
  - Self-harm (ICD)
- **Ambulatory mental health contact**
  - Within 48 hrs and 7 days
- **Medicare records**
  - Mental health item codes

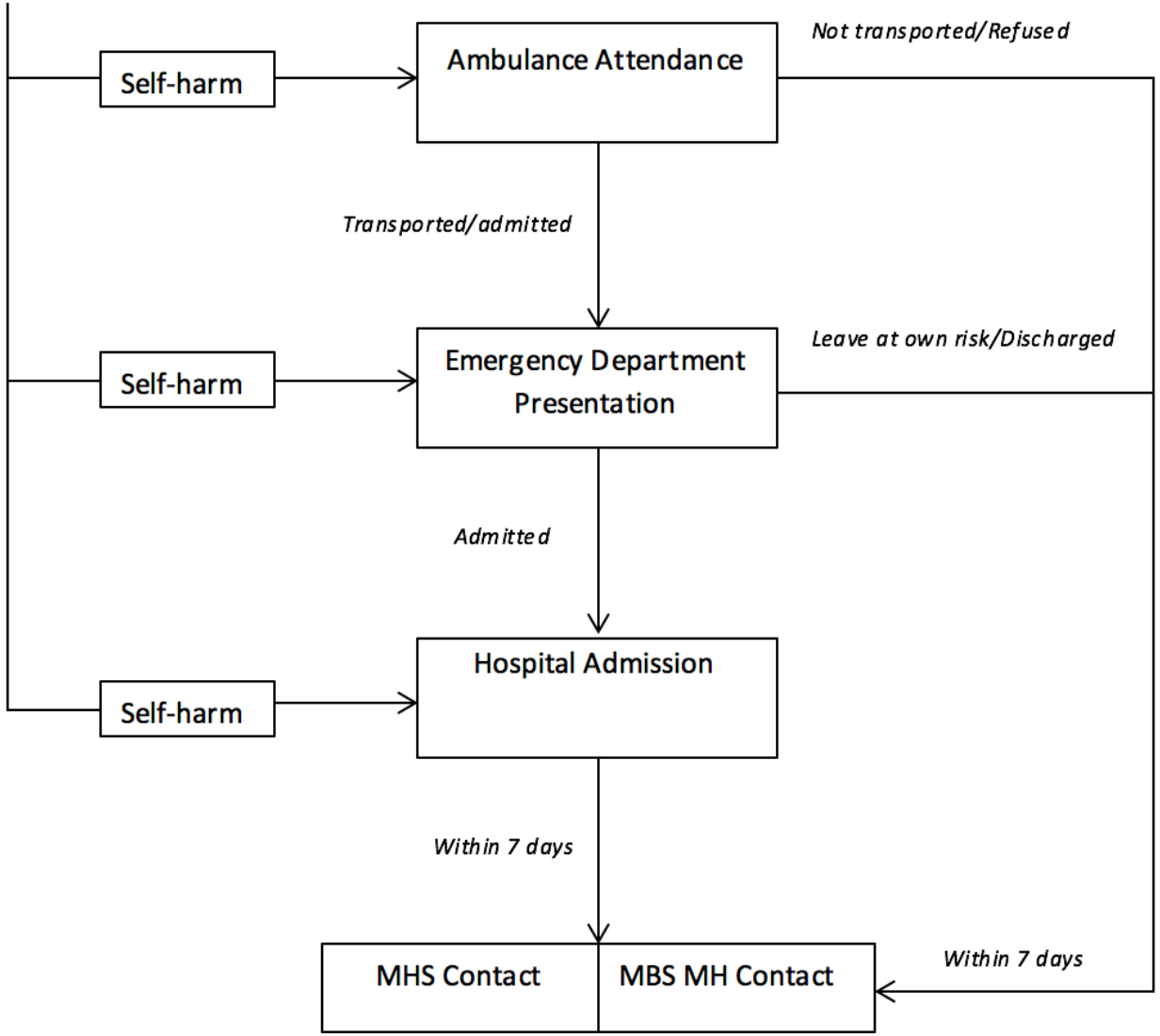


Figure 1: Study design

Statistical analysis

- Unit of analysis was acute care contact events resulting from self-harm
- Multivariable modified Poisson regression; robust standard errors
- Baseline covariates
  - Age, sex, Indigenous status, accommodation status, relationship status, years of school completed, employment status, living alone
  - Health-related: SF36v2-PCS, psychological distress (K10), intellectual disability, pre-release mental health status, prior engagement with community mental health services, identified as being at-risk of self-harm by correctional authorities, self-harm method
  - Criminogenic: Prior adult prison sentences, prior juvenile detention, parole on release, prior violent offence

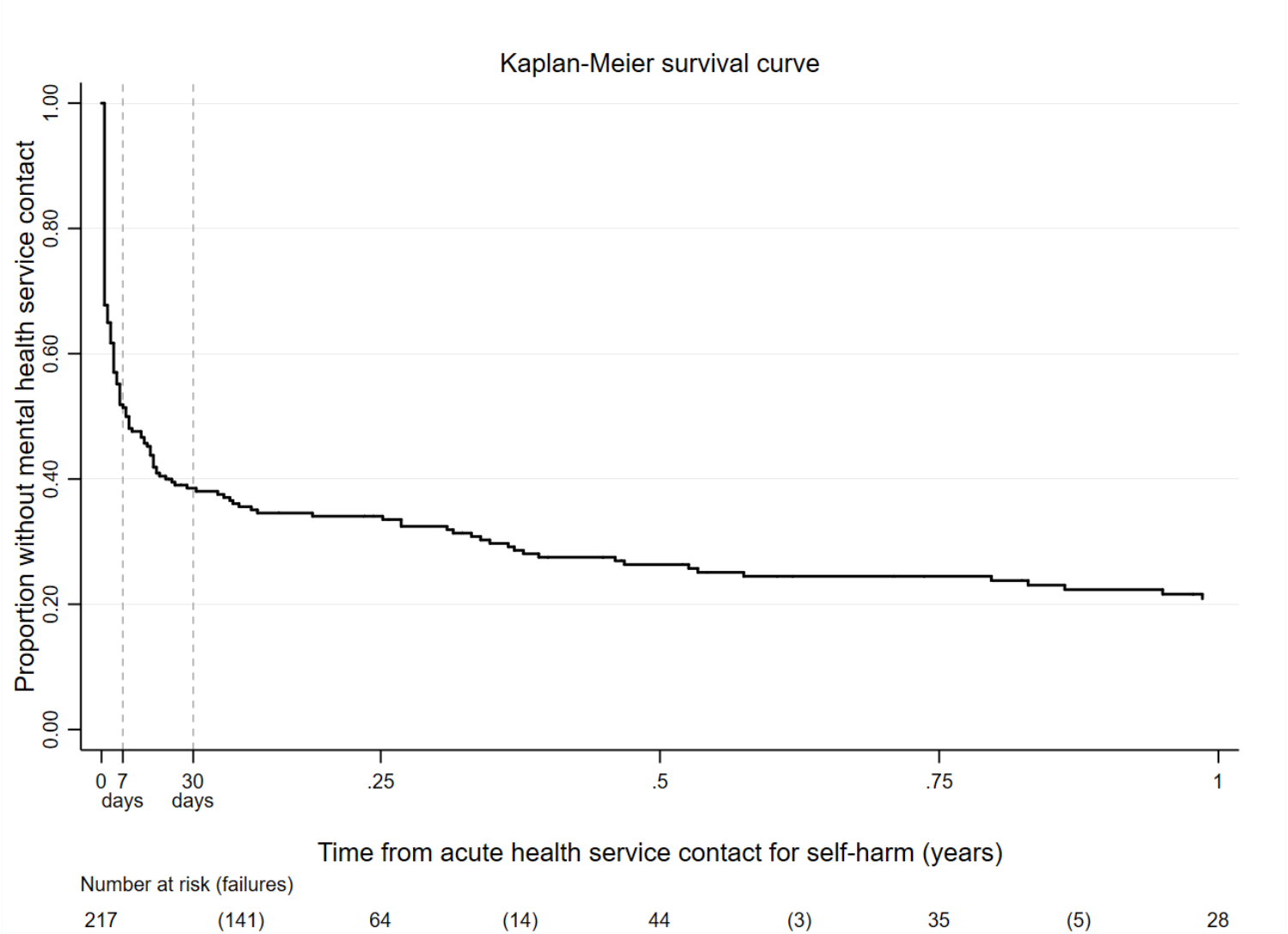


Figure 2: Kaplan-Meier survival curve of mental health service contact after acute health service use for self-harm

Table S3: Type of MH contact after self-harm resulting in acute health service use

Acute health service	State-funded MH service contact N(%)	MH contact during acute health service episode only N(%)	MH contact subsidized by Medicare only N(%)	Total MH contact N(%) n=217
Within 48 hours				
-Ambulance n=8	0 (0%)	0 (0%)	0 (0%)	0 (0%)
-ED n=155	68 (43.9%)	10 (6.5%)	1 (0.7%)	79 (51.0%)
-Hospital n=54	16 (29.6%)	8 (14.8%)	1 (1.9%)	25 (46.3%)
Total				104 (47.9%)
Within 7 days				
-Ambulance n=8	0 (0%)	0 (0%)	0 (0%)	0 (0%)
-ED n=155	86 (55.5%)	6 (3.9%)	1 (0.7%)	93 (60.0%)
-Hospital n=54	23 (42.6%)	4 (7.4%)	1 (1.9%)	28 (51.9%)
Total				121 (55.8%)
Within 30 days				
-Ambulance n=8	1 (12.5%)	0 (0%)	0 (0%)	1 (12.5%)
-ED n=155	103 (66.5%)	3 (1.9%)	2 (1.3%)	108 (69.7%)
-Hospital n=54	29 (53.7%)	3 (5.6%)	3 (5.6%)	35 (64.8%)
Total				144 (66.4%)

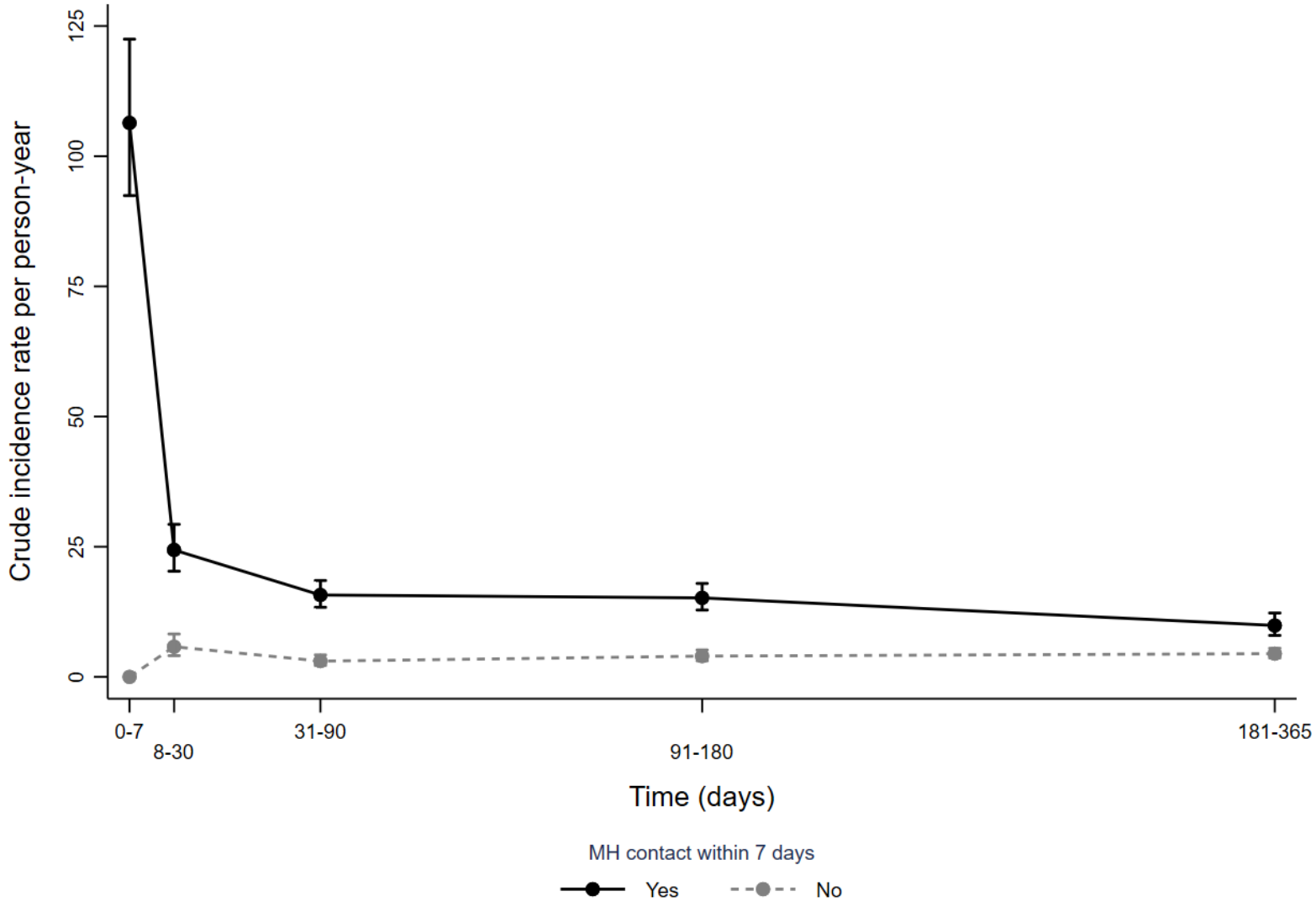


Figure 3: Piecewise incidence of mental healthcare contact following acute care for self-harm

Table 1: Significant predictors of mental health contact within 7 days of acute health service contact for self-harm from a modified Poisson regression model

	Adjusted RR (95%CI)
Female	**1.39 (1.02, 1.90)**
Physical health related-functioning (SF-36v2)	**0.98 (0.97, 0.99)**
Mental health status (ref no mental disorder)	
- MI only	0.62 (0.34, 1.12)
- SUD only	**0.48 (0.27, 0.85)**
- Dual diagnosis	**0.58 (0.41, 0.82)**
Prior engagement with mental health services	**1.55 (1.08, 2.22)**
Identified by correctional authorities as being at risk of self-harm	**1.50 (1.07, 2.09)**

Model adjusted for age, Indigenous status, accommodation status, level of school completed, employment status, relationship status, living alone, level of psychological distress, self-harm method, history of juvenile detention, prior adult prison sentence, released on parole, prior violent offence, and receipt of the Passports intervention

Discussion

- Mental healthcare following self-harm was suboptimal for adults with a recent history of incarceration
- Approx. half of adults received recommended self-harm aftercare
  - Slightly higher than the 31-53% in general population
  - A missed public health opportunity
- Although males and people with SUD or dual diagnosis are at increased risk of suicide after self-harm, less likely to receive aftercare
  - Address unique barriers to accessing mental healthcare

Hunter J, Maunder R, Kurdyak P, Wilton AS, Gruneir A, Vigod S. Mental health follow-up after deliberate self-harm and risk for repeat self-harm and death. *Psychiatry Res* 2018; **259**: 333-9.
Chihara I, Ae R, Kudo Y, et al. Suicidal patients presenting to secondary and tertiary emergency departments and referral to a psychiatrist: a population-based descriptive study from Japan. *BMC Psychiatry* 2018; **18**(1): 112.

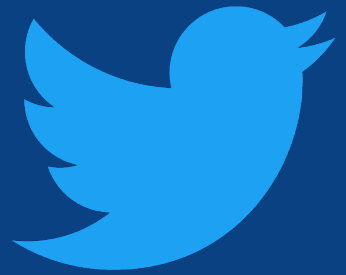
Discussion

- Cases in which an ICD code for self-harm was recorded in ED or hospital records were more likely to access timely mental healthcare
  - Accurate documentation of self-harm in acute care settings
  - Continuity of clinical information as people transition from acute to tertiary care
    - Crucial for suicide prevention
- No discharges from ambulance attendances resulted in mental healthcare contact
  - Active engagement strategies especially important after attendances that do not result in transport to hospital

Conclusions

- Improve the continuity of community mental healthcare for people recently released from prison who present to acute care for self-harm
- Responses initiated by first-responders and acute care clinicians need to be integrated with community mental healthcare providers
- Particularly important for men and those with SUD or dual diagnosis

Thank you for your time!



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