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# Centre for Forensic Self-Harm Thoughts and Behaviour: A Review of Health Records of Adults Receiving Psychiatric Inpatient Services in Canada

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#### INTRODUCTION

Globally, over 700,000 people die by suicide every year and, in 2019, the global agestandardized suicide mortality rate was 9.0 per 100,000 population, which was comparatively lower than the national suicide mortality rate of 10.3 per 100.000 Canadians. Within the context of the general Canadian population, recent data suggest that 1 in 8 (12%) have thought about suicide, 1 in 24 (4.2%) have made suicide plans, and 1 in 32 (3.1%) have made a suicide attempt.2 Self-harm behaviours also continue to be problematic in Canada, as hospitalizations for self-inflicted injury is suggested to occur at a rate of 47 per 100,000 Canadians.3 Although death by suicide among patients hospitalized in psychiatric settings is a rare event, the incidence of completed suicide in psychiatric hospitals is elevated as rates are reported to be anywhere from 5 to 50 times higher than in the general population.4,5 A recent meta-analysis suggests a rate of 1 suicide per 676 (95% CI [604, 755]) admissions or 147 (95% CI [138,156]) suicides per 100.000 inpatient years.5 Self-harm and suicide attempts are also notably prevalent among adults receiving psychiatric inpatient services. For instance, current estimates suggest that anywhere between 36% and 87% of psychiatrically hospitalized persons have a history of suicide attempts, whereas the prevalence of self-harm history may range from 17% to 45%, and in either case the risk for multiple events in this population is high.6,7,8,9,10,11 Taken together, further investigation into the nature of suicidal and self-harm thinking and behaviour, especially among the most vulnerable groups in society, contributes to the global and national imperative of building a knowledge base to inform the management of suicide and selfharm.

### PRIMARY AIM(S)

This study used health records of adults receiving psychiatric inpatient services in Saskatchewan, Canada to:

Assess the nature of lifetime historical and recent incidents related to self-harm and suicide (thoughts + behaviour).

Identify potential correlates of self-harm and suicide (thoughts + behaviour)

**METHOD** 

## Setting

- Public psychiatric hospital located in Saskatchewan, Canada.
- A provincial mental health facility with 284 beds (146 beds for civil patients, 42 beds in forensic services. and 96 beds in correctional unit), providing short- and long-term rehabilitative psychiatric services to men and women across the province.



# Study Design

- Retrospective review of electronic and paper medical records of adults receiving psychiatric inpatient services in both the civil and forensic units during the period from April 1 to December 31, 2021.
- *N* = 183 medical charts (86 in forensic/correctional units).

#### **RESULTS**

#### Sample Characteristics

 Among the 183 charts reviewed. 39% of the sample were female, the average age was 41 years, 54% had a history of childhood trauma, and 75% had a criminal history whereas 47% were residing in the secure unit during the study period. Most patients were living with a schizophrenia spectrum and other psychotic disorder (75%), substance-related and addictive disorder (55%), and neurodevelopmental or personality disorder (22%).

Table 1. Prevalence Estimates for Suicide and Self-Harm Status, by Total Sample, Criminal History, and Hospital Unit

	Lifetime History of Self-Harm	Recent Self-Harm Thoughts/Behaviour	Lifetime History of Suicide Behaviour	Recent Suicidal Thoughts/Behaviour
Total Sample (183)	42% (77)	24% (44)	37% (68)	31% (56)
Criminal history Yes (138) No (45)	<b>49% (67)</b> 22% (10)	<b>25% (34)</b> 22% (10)	<b>40% (55)</b> 29% (13)	<b>32% (44)</b> 27% (12)
Hospital unit Secure (86) Non-secure (97)	<b>59% (51)</b> 27% (26)	<b>28% (24)</b> 21% (20)	<b>52% (45)</b> 24% (23)	<b>35% (30)</b> 27% (26)

Table 2. Selected Findings from Bivariate Analysis

	Any record of suicide/self-harm (n = 113)	No record of suicide/self-harm (n = 70)	P-value
Age, years	38.6 (SD = 14.1)	44.6 (SD = 17.1)	.018
Female sex	49%	24%	.001
Childhood trauma	63%	40%	.001
Custodial hospital unit	57%	31%	.002
Hopelessness	58%	16%	< .001
Neurodevelopmental disorder	27%	14%	.030
Psychotic disorder	68%	86%	.024
Depressive disorder	17%	4%	.005
Anxiety disorder	11%	3%	.046
Impulse control (poor)	36%	26%	.029
Coping (poor)	21%	9%	.001

#### **Key Findings**

- Table 1 highlights prevalence estimates, showing that patients with a criminal history or residing in the secure unit were more likely to have a record of a suicide and/or self-harm event.
- Table 2 presents bivariate associations, comparing patients with any record of suicide/self-harm to those with no record across study variables. Findings show that those with a record of a suicide and/or self-harm event differ on various factors.

#### CONCLUSION

With the high incidence of suicide and selfharm events among psychiatric inpatients. especially forensic patients, a focus on suicide and self-harm thoughts and behaviours represents a top priority for prevention and treatment in psychiatric settings. However, research to inform these efforts has been scarce, especially within the Canadian context. Although medical records provide valuable epidemiological data, they are unable to present the "full picture" as it relates to the development and progression of suicide and self-harm thoughts and behaviours. More research into suicide and self-harm among psychiatric (in)patients in Canadaespecially which adopt a framework that acknowledges the complexity and course of suicidality and self-harm-will lead to more effective strategies for managing these issues in psychiatric settings.

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