

Characteristics of people who committed suicide by train during 2000-2015



Msc. Agnieszka Konieczna
Centre for Suicide Research, Odense, Denmark
Correspondance:agko@cfsmail.dk

INTRODUCTION

Suicides by train represent a relatively small percentage of the total number of suicides committed in Denmark. However, according to The Danish Railway Safety Report (2015), the railway is frequently used as place for suicide and the number of suicides by train has been increasing since the late 1990s. Current knowledge of characteristics of individuals who choose the railway as means of suicide is sparse. Having a better understanding of who commit suicide on the railway can help to better understand the nature of railway suicides and lead to more effective preventive efforts.

Information on causes of death (ICD-10 code X60-X85), diagnosed mental illness, history of mental health hospitalisation and history of suicide attempt was obtained by linking Danish State Railways (DSB) data with Register of Suicides and Statistics Denmark using the unique personal identification number. A total of 10,184 data (183 cases and 10,001 controls) were included into the database and studied. This is a first part of analysis of data before matching.

Statistical Analyses were assessed by the chi2-test and performed with SAS, Version 9.4.

OBJECTIVE

The objective is to characterize individuals who commit suicide on Danish railways in order to develop better preventive strategies. We identify the relationship between psychiatric diagnosis and individuals who died by suicide using train (case) to those who died from suicide using all other methods (controls).

METHOD



RESULTS

Psychiatric characteristics of people who committed suicide by train and other methods in Denmark, 2000-2015. Case-Control study before matching.			
	Railway suicides n=183 (%)	Suicides by other methods n=10001 (%)	p-value
Psychiatric disorder	120 (65,57)	4357 (43,57)	<0.0001
Depression	50 (27,32)	1876 (18,75)	0.003
Bipolar affective mental disorder	15 (8,20)	362 (3,62)	0.001
Substance abuse or dependency	43 (23,50)	1470 (14,69)	0.001
Alcohol	31 (16,94)	1103 (11,02)	0.01
Hash	12 (6,56)	155 (1,55)	<0.0001
Benzodiazepines	5 (2,73)	161 (1,61)	0.23
Schizophrenia and other psychotic disorders	41 (11,48)	950 (9,49)	<0.0001
Anxiety disorders	52 (28,42)	1681 (16,80)	<0.0001
Personality disorders	21 (11,48)	821 (8,21)	0.11
Psychiatric hospitalization	125 (68,31)	4614 (46,14)	<0.0001
Previous suicide attempts	11 (8,20)	204 (2,04)	<0.0001

CONCLUSIONS

Suicides by train and suicides by other methods share some characteristics but also differ in important ways.

It seems, that the prevalence of psychiatric disorders, psychiatric hospitalization and previous suicide attempts is higher in railway suicides than in persons who commit suicide by other means.

The present finding indicate that the more violent the method, the greater proportion of mentally ill among those who use it.

Researchers and clinicians need to use these important data to better understand who commits suicide, and to develop better targeted prevention strategies.