Train suicide mortality and availability of trains: a tale of two countries.

Abstract:
When compared to German rates, train suicides in The Netherlands have made up a larger proportion of the total number of suicides. This study examines whether this difference is attributable to railway parameters, familiarity with rail transport, or population density. Dutch and German train suicide rates from 2000 to 2007 were compared by means of Poisson regression analyses. Train suicide rate ratios were calculated and related to the railway parameters or population density in a Poisson regression model. The Dutch-German general suicide rate ratio was 0.72. In contrast, the train suicide rate in The Netherlands exceeded the German rate by 1.23. In the Poisson regression analyses, where suicide rate was related to railway density or passenger traffic intensity, the Dutch-German train suicide rate ratios became 1.49 and 1.20 respectively. When related to train traffic intensity or population density, however, rate ratios turned into 0.74 and 0.59 respectively. Train traffic intensity contributes to train suicide frequency. Population density also contributes, whereas railway density and familiarity with rail transport do not. In a cross-national comparison the availability hypothesis regarding the number of trains passing was confirmed, which leads to the recommendation of limiting access to the railway tracks.