Factors associated with failed and completed railway suicides.

BACKGROUND: The present analysis aimed to assess the proportion of survivors of railway suicides and to compare survivors and completers in terms of personal characteristics and temporal patterns surrounding the event, to identify potential differences between those who completed suicide and those who survived a serious suicide attempt. METHODS: A total of 5731 suicide victims (including 4003 cases with complete documentation on sex) of the German central railway registry of person accidents covering a six-year observation period of 1997 to 2002 and satisfying the operational definition of an act of suicidal behaviour according to the ICD-10 were included into the data set. To assess the impact of sex, age, local and temporal factors on case fatality, a multivariate logistic regression analysis was performed. RESULTS: A minority of 540 (9.4%) subjects survived the suicidal event leading to a fatal to non-fatal ratio of 9.6:1 (chi(2)-test for equal proportions, p<0.001). Multivariate logistic regression analysis identified the following variables as risk factors for fatal outcome: men (vs. women: Odds ratio (OR)=2.05; 95% CI: 1.65-2.56), night (vs. day: OR=1.80; 95% CI: 1.43-2.27), open track (vs. station area: OR=2.95; 95% CI: 2.36-2.67) and main railway line (vs. local railway line: OR=2.29; 95% CI: 1.43-3.68). Interactions between two factors on fatal outcome were multivariate tested but showed no significance. CONCLUSIONS: Close to 10% of all railway suicide attempts are nonfatal. Fatality of suicidal behaviour on
railway tracks is significantly associated with male sex pointing to a certain degree of ambivalence. Higher odds to die on open track area, fast track lines and during night-time suggest a reduced opportunity to survive due to circumstances.