

Short- and long-term risk factors for suicide and suicide reattempt: A prospective multicentre cohort study in Sweden

1. Clinical treatment and interventions

Oskar Flygare¹, *Johan Bjureberg*¹, *Margda Waern*², *Ellinor Salander Renberg*³, *John Wallert*¹, *Bo Runeson*¹

¹ Centre for Psychiatry Research, Department of Clinical Neuroscience, Karolinska Institutet, & Stockholm Health Care Services, Region Stockholm, Sweden

² Department of Psychiatry and Neurochemistry, University of Göteborg, Göteborg, Sweden

³ Department of Clinical Sciences, Division of Psychiatry, University of Umeå, Umeå, Sweden

Abstract text

Background: We aimed to identify risk factors for suicide and repeat self-harm in patients receiving treatment after a suicide attempt or nonsuicidal self-injury.

Methods: Prospective multicentre cohort study (n = 804) of patients seen at an emergency psychiatric unit after a suicide attempt or nonsuicidal self-injury. Participants underwent a comprehensive psychiatric interview after the index event. Outcomes were suicide or repeat self-harm during follow-up, assessed via linked national registers. Outcomes were analyzed using regularized Cox regression.

Results: During the five-year follow-up period, 285 (35%) individuals had a new episode of self-harm, and 41 (5%) died by suicide. Female gender was associated with a lower risk (hazard ratio [95% CI]) of suicide during follow-up (1-year follow-up = 0.3 [0.14, 0.9]; 5-year follow-up 0.37 [0.23, 4.1]). Risk of self-harm repetition was elevated for patients with a previous suicide attempt (1-year follow-up = 2.11 [1.47, 3.51]; 5-year follow-up = 2.23 [1.67, 2.95]) and increased with the number of psychiatric diagnoses (1-year follow-up = 1.11 [1.07, 1.49]; 5-year follow-up = 1.09 [1.05, 1.16]). Contrary to expectations, patients who experienced relationship problems (1-year follow-up = 0.64 [0.49, 0.85]; 5-year follow-up = 0.7 [0.51, 0.91]) or a worsening of depressive symptoms (1-year follow-up = 0.64 [0.47, 1.12]; 5-year follow-up = 0.68 [0.5, 0.94]) in the week before the index visit had a lower risk of repeat self-harm during follow-up. Risk estimates were similar when evaluating repeat self-harm in the first 90 days after discharge, however the risk factors did not reach statistical significance due to fewer observations.

Conclusions: This study confirmed several previously known risk factors for suicide and repeat self-harm in a severe clinical sample, and identified hopelessness, relationship problems and worsening of depressive symptoms as potential risk- or protective factors for self-harm repetition. These variables can be integrated into routine assessments at psychiatric emergency units and may contribute to risk assessment and treatment planning.