Suicide risk peaks in first week of psychiatric hospitalisation and post-discharge

Qin P, Nordentoft M. Suicide risk in relation to psychiatric hospitalization: evidence based on longitudinal registers. *Arch Gen Psychiatry* 2005;**62**:427–32.

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Q Which psychiatric hospitalisation variables influence suicide risk?

METHODS

Design: Case control study.

Follow up period: Data on suicides was for 17 years (1981–97), data on hospitalisations for 29 years (1969–97).

Setting: Database analysis of Danish national longitudinal registers going back to 1969.

People: 21 169 people (cases; 13 681 men and 7488 women) who had committed suicide (ICD-8 and 10 classification) and 423 128 sex and age matched controls (273 371 men and 149 757 women) who were alive at the time of suicide of the matched case. Cases not resident in Denmark at the beginning of the year in which they committed suicide were excluded.

Risk factors: Time since most recent psychiatric hospitalisation, main diagnosis at recent hospitalisation, length of recent hospitalisation, total number of psychiatric admissions. Conditional logistic regression was used to assess risk factors, and calculations were adjusted for income, area of residence, and marital status in year before suicide, as well as for other risk factors analysed. Odds ratios were calculated for men and women separately.

Outcomes: Suicide.

MAIN RESULTS

Psychiatric hospitalisation increased the risk of suicide, especially in women (OR for women 19.8, 95% CI 18.7 to 20.9; OR for men 10.4, 95% CI 9.9 to 10.9; $p<0.001$ for between sex difference). Suicide risk was increased during the entire admission and post-discharge period, but peaked in the first week of admission and the first week post-discharge (see http://www.ebmentalhealth.com/supplemental for table). People who were admitted for less than the median length of hospitalisation were more likely to commit suicide that those admitted for the median duration or longer (OR for women 1.5, 95% CI 1.4 to 1.7; OR for men 1.4, 95% CI 1.3 to 1.6). Affective disorders increased the risk of suicide more than schizophrenic disorders (OR for women 1.6, 95% CI 1.4 to 1.9; OR for men 1.9, 95% CI 1.6 to 2.2).

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CONCLUSIONS

Suicide risk is greatest immediately after psychiatric hospitalisation and hospital discharge. People admitted for shorter periods are at increased risk, as are people admitted for affective disorders.

Commentary

This study, that makes use of the Danish national longitudinal registers, adds to the evidence of the risk of suicide on admission and discharge from an inpatient psychiatric service.[1–4] Examining the adjusted risk ratio for suicide across the times since psychiatric admission, Qin and colleagues found the risk of suicide in the first week following discharge was 102 times in men and 246 times in women.

The authors calculated the population attributable risk based on their findings and estimated that prevention efforts during the first week after discharge might impact up to 2.1% of male and 3.8% of female suicides. In spite of this transition being an ideal opportunity for selective prevention strategies, very little intervention research has been targeted towards recently discharged patients. These findings, however, do have implications for developing suicide prevention policies for hospital based inpatient psychiatric units.[5] Every inpatient with a history of suicidal behaviour requires a risk assessment 24–48 hours before discharge to ensure that the acute risk of suicide has been attenuated. Links and Hoffman[5] recommended that follow up within seven days of discharge be in place for everyone with severe mental illness or a history of self harm in the previous three months after release from an inpatient service. Patients with a history of self harm in the last few months are also recommended to receive no more than two weeks of medication at discharge from hospital. Individual care plans to specify actions that should be taken if a patient is non-compliant or fails to attend follow up appointments should be developed. Assertive outreach to prevent loss of contact, particularly with vulnerable or high risk patients must be incorporated within the individual care plans.

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