

## **ABSTRACT**

### **Background**

The immediate post-discharge period from psychiatric inpatient care has been identified as a high-risk period for suicide. However, there have been few studies that focused on the identification of risk factors during this high-risk period.

### **Objective**

The aim of this study was to identify the possible time-related risk factors for suicide in patients discharged from psychiatric inpatient care.

### **Method**

A matched case-control case note study covering all psychiatric hospitals in Hong Kong. Cases had Coroner's verdicts of suicide or undetermined death which were divided into early suicides (died within 60 days of discharge, N=97) and late suicides (died within 9-15 months after discharge, N=83). They were matched with controls for age, gender, diagnosis, discharged hospital and date of discharge. Cases and controls were compared on clinical, psychosocial and treatment factors. Multivariate conditional logistic regression was carried out to identify independent risk factors for suicide.

### **Findings**

A total of 97 early suicides (99% of the identified cases) and 83 late suicides (94% of the identified cases) were matched with controls. The commonest diagnosis among the suicides was schizophrenia and related disorders (54% for early suicides and 59% for late suicides). This was followed by depressive disorders (10% for early suicides and 7% for late suicides). Early suicides were associated with: previous deliberate self-harm (odds ratio [OR]=2.3, 95% confidence interval [CI]= 1.1-5.1), admitted for deliberate self-harm/suicidal idea (3.2, 1.3-7.8), living alone (5.8, 1.5-23.1), work-related stress at follow-up (5.4, 1.5-18.8), compulsory admission (3.1, 1.1-8.8) and out of contact at follow-up (7.9, 1.9-33.0). Late suicides were associated with: family history of deliberate self-harm/mental illness (5.6, 1.9-16.0), previous deliberate self-harm (3.1, 1.3-7.7), depressive symptoms at follow-up (6.7, 1.5-29.9), short duration of illness (2.8, 1.1-7.4), being single (3.6, 1.2-10.6), out of contact at

follow-up (2.9, 1.0-8.0), and on depot antipsychotics at follow-up (3.7, 1.2-11.8). Previous deliberate self-harm and out of contact at follow-up were the common risk factors for early and late suicides. Further examination using univariate analysis and multivariate conditional logistic regression suggested that some risk factors appear to be related to specific time periods after discharge.

## **Conclusion**

Case-control analysis for early and late suicides after discharge from inpatient treatment revealed different risk factors as well as common factors. Certain features in the index admission appear to be associated with early suicide. High index of awareness of the presence of risk factors for suicide might help clinicians to implement time-related measures for intervention.

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