Hospital management of self-harm and later risk of suicide and overall mortality

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WHAT IS ALREADY KNOWN ON THIS TOPIC?

People with a history of mental disorders account for half—or more—of all suicides.[1] Mental disorders and self-harm are some of the strongest predictors of suicide.[2] Yet, we have only sparse indications that the offered support actually helps reduce their risk of suicide.

METHODS OF THE STUDY

In this cohort study, hospital management after self-harm at one of five emergency departments (ED) located in three cities in the UK was examined. People aged 15 years and older who presented with self-harm (n=38 415) during 2000–2010 were studied using data from the Multicentre Study of Self-harm, in England.

The impact by four types of hospital management was examined: (1) psychosocial assessment, covering evaluation of social circumstances and needs of the patient; (2) admission to somatic hospital; (3) referral for specialist community mental health follow-up, that is, out-patient care; and (4) admission to psychiatric hospital. The outcomes were death by any cause and suicide. Data on fatal outcomes were derived from the Data Linkage Service, an innovative measure to link records from different UK administrative registers, using a National Health Service number. Participants were included on date of hospital presentation and followed for a period of 12 months.

Ratios were calculated to determine differences between those who received the examined interventions and those who did not. Adjusted analyses included relevant variables, such as method, previous psychiatric treatment and history of self-harm.

WHAT DOES THIS PAPER ADD?

- The authors found an increasing risk of fatal outcomes relative to the intensity of the intervention. Patients who received psychosocial assessment, the less intensive format of treatment, had lower risks of dying by any cause (RR 1.16, 95% CI 0.93 to 1.46) than those referred on to psychiatric admission (2.35, 2.04 to 2.72) in the unadjusted analysis.
- Adjusting for history of mental disorders and self-harm, the differences in risks were no longer significant. For instance, the risk of dying by suicide was 1.35 (1.22 to 1.49) among those patients who received a psychosocial assessment versus those that did not, in the adjusted analysis. The risk among those referred to out-patient mental health follow-up was 1.48 (0.99 to 2.22) while those admitted to psychiatric hospital had a 1.12-fold (0.67 to 1.85) higher risk. The estimates of the three groups have overlapping CIs, implying that the difference might be due to random variation.
- Confounding by indication is likely to explain the findings. It is likely that the referrals were based on risk profile and the patients who were referred on to further treatment were evaluated to be in a more critical stage, namely, requiring more treatment.
- Still, administrative data are partially free of bias and provide a fruitful basis for establishing priorities as to which focus areas or interventions we should aim to examine more carefully, for example, in randomised clinical trials.

LIMITATIONS

- These are observational data and their collection was not designed with research in mind, for instance, detailed psychological measures were not collected.
- It is challenging to interpret findings based on administrative data. From a scientific point of view, additional data, for instance, a risk assessment tool, would have been preferred. Owing to the nature of the data, the findings are to some extent based on assumptions.

WHAT NEXT IN RESEARCH?

- Even though observational data can provide useful insights[3] (in this study, for instance, the adjusted analysis suggested a reduction in risks among those referred to psychiatric admission), randomised clinical trials (ideally with a pragmatic design) are still needed to better inform clinical guidelines.
- If psychosocial assessment were to be offered on equal terms irrespective of severity of self-harm, it would help in assessing what the suicide risks would be among those who were not referred for mental health follow-up care. If this group had a lower risk than those referred, we could interpret this as an indication that the assessment might be working.

DO THESE RESULTS CHANGE YOUR PRACTICES AND WHY?

Probably yes. The findings from this study indicate that the referral practice should be alerted to high-risk profiles. It would be relevant to assess the provided psychosocial assessment in more detail in order to determine if hospital management may actually prevent fatalities. The interesting aspect of the study is the interpretation of the findings. It is highly difficult to entangle whether the observed gradient in risk reflects good judgement by the medical staff assessing the patients in the ED or whether the support offered is effective.

Competing interests None declared.

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