Review: Risk for suicide is increased for most mental disorders where patients require treatment in a hospital setting


Objectives
To determine the risk for suicide among patients with common mental disorders.

Data sources
English-language studies were identified by searching the Index Medicus and MEDLINE (1966 to 1993) using the terms mental disorders, mortality, follow-up, brain injury, eating disorders, epilepsy, suicide attempt, and psychosurgery. Additional studies were identified by reviewing several journals up to mid-1995 and by scanning the reference lists of retrieved articles.

Study selection
Studies were selected if they reported the mortality of mental disorders, had ≥ 2 years of follow-up, had < 10% loss to follow-up, and compared observed numbers of suicides with those expected.

Data extraction
Data were extracted on the mental disorder studied, sample size, length of follow-up, country where the investigation occurred, observed suicide rates, and expected suicide rates, if provided in the article. If the expected suicide rates were not provided, they were estimated using the World Health Organisation statistical reports for the relevant country and year, combined with the age and sex composition and mean observation period for each study.

Main results
249 studies met the selection criteria. Standardised mortality ratios (SMRs) were calculated for each disorder by comparing the sums of the observed and expected values. Of 44 disorders considered, 36 had a statistically significant raised SMR for suicide, 5 had a raised SMR that did not reach statistical significance, 1 SMR was not raised, and 2 SMRs could not be calculated because no suicides were reported. It appeared that there was an increased risk for suicide for most mental disorders where patients required treatment, mainly in a hospital setting, except for those with mental retardation, dementia, and agoraphobia.

Commentary
This study is the corollary of the 1974 investigation by Barraclough and colleagues (1) on 100 consecutive patients who were admitted to mental hospitals, and the investigation used the psychological autopsy method (a retrospective reconstruction of the life, personality, and state of mind of the deceased person from records and interviews with others). 91% of the individuals who committed suicide had a history of mental illness, and 64% had an uncorrected depressive illness. This study by Harris and Harralough approaches the problem from the opposite direction, finding increased risk for suicide in 36 of 94 disorders, with functional disorders collectively having the highest risks. However, within the functional disorders group, wide variability exists, ranging from a high of 20 times greater than that expected for major depression to a low of 4 in neurosis. Other functional disorders, such as bipolar disorder, brief reactive psychosis, schizophrenia, adjustment disorders, personality disorders, and suicide, also carry substantial risk for suicide.

The importance of this study for the clinician is that the possibility of a suicidal outcome must be considered in almost every patient. The clinician should routinely inquire during the initial assessment about the presence of depression (as a symptom, future perspective, and above negative (including suicidal) thinking. Further assessments are needed from time to time, especially after hospital discharge, when there is a turn for the worse, or the chronicity and resistance to treatment might indicate the need for inpatient hospitalization in the patient (and clinician).

This counsel also applies to medical disorders with links to mental disorders, such as substance abuse, HIV and AIDS, cancer, Huntington disease, multiple sclerosis, systemic lupus erythematosus, etc.

This important study quantifies the risk for suicide for common mental disorders. Pooling data does carry the risk for reductionism, minimizing heterogeneity of samples and variability between studies. Older material may also affect findings in unknown ways.

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ETIOLOGY

Smoking increased the risk for death and MI after percutaneous revascularization


Objective
To determine the long-term effect of smoking in patients who had percutaneous coronary revascularization.

Design
16-year cohort study.

Setting
Mayo Clinic, Minnesota, United States.

Patients
5450 patients (mean age 64 y, 74% men) who had clinically successful percutaneous coronary revascularization at the Mayo Clinic between 1979 and 1995 and did not have acute myocardial infarction (MI) within 24 hours of the procedure. Clinical success was defined as a reduction of a 20 percentage points in stenosis of ≥ 1 lesion and a residual diameter stenosis of ≤ 50% without in-hospital complications of death, Q-wave MI, or need for coronary artery bypass graft (CABG). 13 patients who started to smoke during follow-up were excluded. The mean follow-up was 4.5 years.

Assessment of risk factors
Patients were followed up 6 and 12 months after revascularization and yearly thereafter. Patients were divided into 4 groups according to their baseline smoking status: nonsmokers (n = 2009) were patients who had never smoked, former smokers (n = 2259) had stopped smoking ≥ 6 months before revascularization, quitters (n = 433) had stopped smoking after revascularization, and persistent smokers (n = 734) smoked before and after revascularization.

Main outcome measures
All-cause mortality, Q-wave acute MI or severe angina, and need for CABG or repeat revascularization.

Main results
Multivariate analysis controlled for the following baseline variables: age, sex, severe or unstable angina, previous MI, previous MI, congestive heart failure, history of diabetes mellitus or hypertension, complete revascularization, malignancy or family history of coronary artery disease, and number of vessels dilated. Persistent smokers had increased risk for death from all causes (relative risk [RR] 1.16, 95% CI 1.37 to 2.26) and for Q-wave MI (RR 2.08, CI 1.16 to 3.72) compared with nonsmokers. The risk for death from cardiac causes was greater in former smokers and persistent smokers than in nonsmokers (RR 1.28, CI 1.04 to 1.58 and RR 1.44, CI 1.04 to 2.04, respectively). Compared with nonsmokers, quitters and persistent smokers had reduced risk for repeat revascularization (RR 0.80, CI 0.64 to 0.98 and RR 0.67, CI 0.56 to 0.81, respectively) and for CABG (RR 0.72, CI 0.58 to 0.95 and RR 0.68, CI 0.54 to 0.86, respectively). Persistent smokers had greater risk for death from any cause than did quitters (RR 1.94, CI 1.02 to 2.11).

Conclusions
Patients who continued to smoke after successful percutaneous coronary revascularization were at greater risk for death from any cause or for Q-wave myocardial infarction than nonsmokers. Stopping smoking after revascularization reduced the risk for death. Source of funding: No external funding.

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