Review: people with schizophrenia or other mental illnesses have a lower rate of invasive coronary interventions after acute coronary syndrome

QUESTION
Question: Are there inequalities in the provision of invasive coronary procedures and mortality from acute coronary syndromes in people with mental illness compared with people without mental illness?
Outcomes: Receipt of any invasive coronary procedures (revascularisation, angiography angioplasty or bypass grafting) and death rate (1-year outcomes included in analysis if available, otherwise 30-day rates included).

METHODS
Design: Systematic review and meta-analysis.
Data sources: MEDLINE/PubMed, EMBASE, ScienceDirect, Ingenta Connect, SpringerLink and Wiley Online Library, Web of Knowledge and Scopus were searched from start date to 20 July 2010. To identify additional studies, key journals were hand searched and experts were contacted.
Study selection and analysis: The review included comparative studies of patients with acute coronary syndromes with data on rates of subsequent invasive coronary procedures or mortality, which reported separate data for those with mental and without mental ill health. Studies looking at people with severe mental illness (SMI) were only included where there was a subgroup of people with schizophrenia. Random effects meta-analysis that was used as heterogeneity in the analyses was high (as measured by the I2 statistic). Results were only pooled for analyses where there were three independent studies available.

MAIN RESULTS
Nine articles relating to cardiac procedures following acute coronary syndrome (n=825 754) were reviewed. Random effects meta-analysis demonstrated people with mental illness or SMI were less likely to receive invasive coronary interventions compared with people without mental illness (OR 0.86, 95% CI 0.80 to 0.92; I2=98%). When looking at each procedure individually, patients with mental illness received less cardiac catheterisation (RR 0.85, 95% CI 0.76 to 0.95). There was also a reduction in the receipt of coronary artery bypass graft (CABG) by people with mental illness, which was of borderline significance (RR 0.85, 95% CI 0.72 to 1.00). When looking specifically at people with schizophrenia, they were also less likely to receive invasive coronary interventions (RR 0.53, 95% CI 0.44 to 0.64; I2=77.6%). Most specifically, they were less likely to receive less CABG and PTCA/PCI (CABG: RR 0.69, 95% CI 0.55 to 0.85; PTCA/PCI: RR 0.50, 95% CI 0.34 to 0.75). Six studies (n=596 368) assessed mortality following acute coronary syndrome and met inclusion criteria. In people with mental illness, there was a borderline increase in risk of mortality after acute coronary syndrome relative to people without a mental illness (RR 1.11, 95% CI 1.00 to 1.24, p=0.05). There were insufficient data to assess the risk of mortality after acute coronary syndrome associated with schizophrenia alone.

CONCLUSIONS
People with mental illnesses, including those with schizophrenia, have a lower rate of receipt of invasive coronary interventions after cardiac events. They also have a borderline significant increase in mortality after acute coronary syndrome compared with those without mental illnesses.

ABSTRACTED FROM

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COMMENTARY

Different studies have shown that people with severe mental illness (SMI), including schizophrenia, bipolar disorder, schizoaffective disorder and major depressive disorder, have an excess mortality, being two or three times as high as that in the general population, even in countries where the quality of the healthcare system is generally acknowledged to be good.¹

The recent meta-analysis by Mitchell and Lawrence on invasive coronary procedures and related mortality in patients with SMI confirms the high mortality but questions whether some of the excess mortality is due to poorer quality of physical healthcare.² Patients with SMI received about 14% less frequent therapeutic cardiac procedures (47% in the case of schizophrenia) and had about an 11% increased mortality. This is the first study to systematically examine quality of care and mortality following cardiac events in a large patient sample. A limitation of the study is that the data analysed were observational studies, mainly from the USA. Nevertheless, this study highlights the need for further research on the reasons for low quality of care, as well as the consequences of low-quality care, in a vulnerable population.

Poor quality or infrequent medical care is also a concern in psychiatric settings. A recent review confirmed that patient, provider, treatment and system factors are barriers to the recognition and to the management of physical diseases in people with SMI.³ Different screening and monitoring guidelines have been published in recent years.⁴ Overall, the medical screening and assessment of physical health aspects in people with SMI remains poor.⁵ The adoption of these recommendations, across healthcare systems, will contribute to a significant improvement in the medical and related psychiatric health of patients with SMI. The improved physical health outcomes in SMI patients will benefit patients and societies. Psychiatrists can play a pivotal role in the improvement of the physical health by educating and helping people with SMI to address their suboptimal lifestyle, including smoking, unhealthy diet and lack of exercise. Physicians also have an important role to ensure patients with SMI are offered equitable medical care.

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