

Psychotic disorders cause the greatest mortality disparity among mental disorders, though more deaths are attributable overall to mood and anxiety disorders

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WHAT IS ALREADY KNOWN ON THIS TOPIC

It is of great concern to clinicians, patients and policymakers internationally that individuals with mental disorders experiencing worse overall health and earlier death than those without these disorders. The difference in populations studied and methods used has produced substantial variability in estimates of mortality ratios and years of life lost in those with mental disorders. For example, one study¹ in the USA estimates years of life lost at about 30 years in people with mental disorders compared to those without these problems, while other studies² have indicated smaller differences.

METHODS OF THE STUDY

This systematic review and meta-analysis examined mortality risk among people with psychiatric conditions and differences in risk by cause of death, diagnosis and study characteristics. Data sources included EMBASE, MEDLINE, PsychINFO and Web of Science until May 2014. Inclusion criteria were: (1) cohort design; (2) included psychiatric diagnoses; (3) mortality as an outcome with comparison of people with and without mental disorders; (4) English language. Exclusion criteria were: (1) restriction to specific medical conditions (2) reporting duplicate data. Study selection criteria were applied by two independent reviewers. Random effects meta-analysis was performed. Heterogeneity was assessed using the Cochran Q and the I² tests. Potential publication bias were assessed using the funnel plot and Egger test. Outcomes included standardised mortality ratios, relative risks, years of potential life lost and population attributable risk.

WHAT THIS PAPER ADDS

- ▶ This is the most rigorous and comprehensive analysis to date. Studies with follow-up of more than 10 years produced smaller differences in mortality than those with shorter follow-up ($p=0.02$) in the meta-regression model. Studies of inpatients showed greater mortality disparities than those with outpatients ($p=0.03$) or community or population-based samples ($p=0.04$). Studies conducted with a baseline year in the 1990's had wider disparities in mortality for those with mental disorders than studies conducted before 1970, suggesting that the mortality gap may be growing over time.
- ▶ The pooled relative-risk (RR) of all-cause mortality among those with mental disorders was 2.22 (95% CI 2.12 to 2.33) and that the median years of potential life lost was 10. In contrast to most prior studies and reviews,³ the authors also compare estimates of these parameters among main diagnostic groups and place these results in a broader epidemiological context by using psychiatric disorder prevalence estimates from the WHO to estimate the overall impact of these disparities in mortality risk worldwide.
- ▶ The mortality ratio for those with psychoses (RR 2.54) is significantly higher than for those with bipolar disorder (RR 2.00), depression (RR 1.71) and anxiety disorders (RR 1.43) and this is helpful for clinicians to identify the population at highest risk of mortality.

LIMITATIONS

- ▶ Reviewed studies do not report the proportions of the study populations with substance use disorders, which are highly prevalent in people with mental disorders. For various reasons, including both the direct effect of substances and the association with poor health behaviour, individuals with substance use disorders experience increased mortality.⁴
- ▶ The studies reviewed had a large degree of heterogeneity that could not be explained entirely by the variables assessed.
- ▶ Studies could have been missed due to the limitation to English language only.

WHAT NEXT IN RESEARCH

- ▶ Explore the relationship between substance abuse disorders and mortality and assess the proportion of excess mortality accounted for by substance abuse in individuals with mental illness.
- ▶ There is need for research into strategies to mitigate the excess mortality associated with psychiatric illness. Targeting psychotic disorders may have a greater impact on individuals; while targeting more common diagnoses, such as depression and anxiety, would have a greater impact on the population as a whole.
- ▶ The authors describe an approach of expanding access to care, improving treatment of chronic conditions and helping to promote healthier and safer behaviours by emphasising preventive care related to chronic medical conditions and suicide prevention.

DO THESE RESULTS CHANGE YOUR PRACTICES AND WHY?

Yes. By understanding the extent to which individuals with mental disorders are vulnerable to disparities in mortality, clinicians can focus on preventive services and coordination of medical and mental health services. Through calculations of the population attributable risk and attributable number of deaths worldwide, the results highlight the high mortality burden of mental illness and help policy-makers to focus on categories responsible for the highest number of deaths (mood and anxiety disorders).

Competing interests None declared.

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REFERENCES

1. **Colton CW**, Manderscheid RW. Congruencies in increased mortality rates, years of potential life lost, and causes of death among public mental health clients in eight states. *Prev Chronic Dis* 2006;**3**:A42.
2. **Saha S**, Chant D, McGrath J. A systematic review of mortality in schizophrenia: is the differential mortality gap worsening over time? *Arch Gen Psychiatry* 2007;**64**:1123–31.
3. **Chesney E**, Goodwin GM, Fazel S. Risks of all-cause and suicide mortality in mental disorders: a meta-review. *World Psychiatry* 2014;**13**:153–60.
4. **Rogers RG**, Boardman JD, Pendergast PM, *et al.* Drinking problems and mortality risk in the United States. *Drug Alcohol Depend* 2015;**151**:38–46.