

Does Depression Specifically Increase Cardiovascular Mortality?

TO THE EDITOR: We read with interest the study conducted by Paul G. Surtees, Ph.D., et al., published in the April 2008 issue of the *Journal* (1). The authors reported that major depression was associated with increased heart disease mortality in nearly 20,000 individuals between the ages of 41 and 80 years who participated in the Norfolk, U.K. cohort of the European Prospective Investigation Into Cancer (EPIC-Norfolk) Study. This finding suggests that depression specifically increases cardiovascular mortality by cardiovascular mechanisms.

However, Dr. Surtees et al. did not report the association between depression and noncardiovascular mortality. Earlier findings from the EPIC-Norfolk study showed that both cardiovascular and noncardiovascular mortality are increased among individuals with poor self-reported mental health (2) and poor sense of coherence (3). When noncardiovascular mortality is also increased among depressed individuals, it is likely that unhealthy behavior and a lifestyle inherent to depression, rather than cardiovascular mechanisms, explain the increased mortality risk associated with depression (4).

References

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Dr. Surtees Replies

TO THE EDITOR: Drs. Vinkers and van der Mast ask whether depression increased noncardiovascular mortality in the EPIC-Norfolk study. Based on the 19,649 participants who were followed up through July 31, 2006 and all adjustments as previously reported, past-year major depressive disorder was not associated with either cancer mortality (hazard ratio based on 813 deaths=0.73, 95% confidence interval [CI]=0.45–1.18) or deaths from cardiovascular causes other than ischemic heart disease (hazard ratio based on 310 deaths=0.89,

95% CI=0.39–2.04). In addition, we recently reported more specifically that past-year major depressive disorder was not associated with incident stroke (1). Previous studies based on the EPIC-Norfolk data have shown evidence that individual differences in a measure of psychological resilience are associated with increases in both cardiovascular and noncardiovascular mortality (2). Consistent with the suggestions of Drs. Vinkers and van der Mast, we subsequently reported these individual differences in psychological resilience to be associated with healthy lifestyle choices represented by dietary intake (alcohol, fruits and vegetables, fiber, saturated fat, sodium, and sugar), smoking, and physical activity (3) and that lifestyle choices partly account for the association with mortality (4).

Our findings therefore provide some evidence that the association with major depressive disorder is specific to ischemic heart disease mortality, whereas a more general measure of self-reported mental functional health appears to be associated with both cardiovascular and cancer mortality (5). We note that past-year major depressive disorder was associated with mortality from other (noncardiovascular and non-cancer) deaths (hazard ratio based on 445 deaths=2.34, 95% CI=1.44–3.79), a finding that shows some consistency with those of Drs. Vinkers et al. (6) and perhaps warrants further investigation. Finally, our study indicated that depression may encourage the adoption of a cardiotoxic lifestyle but that this is not necessarily the dominant contributor to understanding the essentially unexplained prospective association between depression and heart disease. This possibility, together with other competing hypotheses, remains to be formally tested.

References

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