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Mental disorders across the adult life course and future coronary heart disease: evidence for general susceptibility or specific effects?

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We read with interest the study by Gale and colleagues reporting on mental disorders and future coronary heart disease (CHD) in Swedish men¹. Important strengths of the study are the young age of psychiatric assessment and the assessment of a wide range of mental disorders. The authors concluded that the increased risk of incident CHD is present across different mental disorders, suggesting a general susceptibility for CHD associated with psychopathology. However, we argue that there appears to be a specific link between anxiety disorders and development of CHD.

While most attention has been directed to depression^{2,3}, other mental disorders, including anxiety⁴, are associated with an increased risk of CHD as well. However, most studies so far focused on individual disorders in relation to CHD and were therefore unable to adjust for other mental disorders. This is important since comorbidity rates of mental disorders are high. A recent study on data from the World Mental Health surveys compared the relative strengths of the associations between DSM-IV mental disorders with subsequent heart disease. In this study, substance use disorders and fear related anxiety disorders, namely panic disorder, specific phobia, and posttraumatic stress disorder (PTSD), were the strongest predictors of heart disease onset⁵. Other anxiety disorders, including generalized anxiety disorder (GAD), were not predictive of heart disease after comorbidity adjustment, and the association of depression with CHD was relatively weak.

The results by Gale et al. are remarkably similar in the sense that most consistent associations were found for substance use disorders and neurotic/adjustment disorders. The relationship between depression and future CHD was not statistically significant after adjustment for important covariables, and after excluding men with comorbid mental disorders, neurotic/adjustment disorders were the strongest predictors of CHD onset. While the association between substance use disorders and risk of CHD can likely for a large part be explained by excessive alcohol use and smoking habits, the mechanisms underlying the potential impact of anxiety on CHD are less clear. Fear disorders, characterized by somatic arousal and phobic fear, might have a stronger effect on cardiac risk factors than other mental disorders. Unfortunately, Gale and colleagues did not assess whether fear disorders show an especially strong relationship with future CHD. The category of neurotic/adjustment

disorders encompassed various disorders, and besides phobia, panic disorder, and PTSD, this category included GAD, obsessive compulsive disorder, somatoform disorders, and adjustment disorder.

Future studies should assess whether mental disorders in general increase the risk of future CHD, or whether there is an additional specific association between fear disorders and CHD development.

Focusing on anxiety is especially important since anxiety disorders are among the most prevalent mental disorders in the general population, and they are experienced by around a third of those presenting to cardiology and emergency departments with chest pain. They may therefore be of high clinical significance in reducing the burden of disease due to CHD.

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All authors have no conflicts of interest to declare

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