Review: worldwide lifetime prevalence of anxiety disorders is 16.6%, with considerable heterogeneity between studies

Somers JM, Goldner EM, Waraich P, *et al*. Prevalence and incidence studies of anxiety disorders: A systematic review of the literature. *Can J Psychiatry* 2006;**51**:100–3.

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Q **What is the prevalence and incidence of anxiety disorders in a general population and what is the degree of heterogeneity between studies?**

METHODS

Design: Systematic review with meta-analyses.

Data sources: MEDLINE and HealthSTAR databases plus hand searches of reference lists; 1980 to 2004.

Study selection and analysis: English-language articles examining prevalence and/or incidence of anxiety disorders in adult populations with samples sizes of 450 or more. Only studies using standardised diagnostic instruments or clinical diagnosis were selected. One-year prevalence, lifetime prevalence, and incidence data were extracted (overall, sex and age specific rates) from each study and pooled using Fastpro software (where three or more rates were reported). Pooled rates were tested for heterogeneity according to the Fleiss method. Exclusions: studies reporting point prevalence or six month prevalence data only.

Outcomes: Prevalence and incidence rates of anxiety disorders.

MAIN RESULTS

Forty one prevalence studies met inclusion criteria, these studies were performed worldwide (North America, Puerto Rico, Mexico, Europe, Australia, New Zealand, Taiwan, Hong Kong, Korea, and Iran). Pooled one-year and lifetime prevalence rates for any anxiety disorder were 10.6% and 16.6% respectively (see http://www.ebmentalhealth.com/supplemental for table). Heterogeneity was seen across rates for all disorders. Women had higher prevalence of anxiety disorders than men (one-year prevalence of any anxiety disorder: 16.4% for women *v* 8.9% for men; lifetime prevalence of any anxiety disorder: 18.5% for women *v* 10.4% for men). Only five incidence studies met inclusion criteria, therefore a pooled analysis was not conducted.

CONCLUSIONS

There is a high prevalence of anxiety disorders within the global population. However, prevalence rates vary substantially between

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For correspondence: Dr Julian Somers, Faculty of Health Sciences, Simon Fraser University, 7238-515 Hastings Street, Vancouver BC, V6B 5K3, Canada; jsomers@sfu.ca

individual studies. Further studies on the incidence of anxiety disorders are needed.

Commentary

Anxiety disorders represent a significant public health problem because they occur frequently and are associated with complications and disability. The healthcare system's response to the needs created by anxiety disorders is somewhat hampered by the discrepant findings of the relevant epidemiological studies. Even studies conducted in the same country provide conflicting information. For example, the lifetime prevalence of social anxiety disorder was 2.7% in one large survey in the US[1] and 13.3% in another.[2]

One of the driving forces behind the study by Somers *et al* was apparently a need to understand better the sources of this variability. The work is a systematic review of the selected studies published between 1980 and 2004 on the epidemiology of anxiety disorders in general adult population.

Unsurprisingly, the review reports that anxiety disorders as a group are highly prevalent (with the best estimate for lifetime prevalence being 16.6%) and that women are more likely to suffer from them. Generalised anxiety disorder appears to be the most common anxiety disorder, followed closely by specific phobia. The best estimate prevalence rates for agoraphobia were higher than those for panic disorder, which has implications for conceptualisation of their relationship.

The review has identified several sources of variability in prevalence rates. These include social and cultural factors, different diagnostic instruments, and different sample sizes and response rates. Different diagnostic criteria also play a role, with generally lower prevalence rates reported with DSM-III criteria. The knowledge of these factors is important to critically evaluate epidemiological figures for anxiety disorders; in turn, this should lead to a more efficient planning for relevant mental health services. Furthermore, as the pendulum has apparently swung in the direction of overestimating prevalence rates, corrective measures should be implemented to decrease the spuriously elevated rates. A good example is the use of "clinical significance" criteria.[3]

Vladan Starcevic, MD, PhD, FRANZCP
University of Sydney and Nepean Hospital, Sydney, NSW, Australia

1 Robins LN, Regier DA. *Psychiatric disorders in America.* New York: Macmillan, 1991.
2 Kessler RC, McGonagle KA, Zhao S, *et al.* Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States: results from the National Comorbidity Survey. *Arch Gen Psychiatry* 1994;**51**:8–19.
3 Narrow WE, Rae DS, Robins LN, *et al.* Revised prevalence estimates of mental disorders in the United States: using a clinical significance criterion to reconcile 2 surveys' estimates. *Arch Gen Psychiatry* 2002;**59**:115–23.