Abstract

Background Information on prevalence, accumulation and variation of common mental disorders is essential for both etiological research and development of mental health service systems. Methods A representative sample (6005) of Finland’s general adult (≥ 30 years) population was interviewed in the period 2000–2001 with the CIDI for presence of DSM-IV mental disorders during the last 12 months in the comprehensive, multidisciplinary Health 2000 project. Results Depressive-, alcohol use- and anxiety disorders were found in 6.5%, 4.5% and 4.1% of the subjects, respectively. A comorbid disorder was present in 19% of those with any disorder. Males had more alcohol use disorders (7.3% vs. 1.4%) and females more depressive disorders (8.3% vs. 4.6%). Older age, marriage and employment predicted lower prevalence of mental disorders and their comorbidity. Prevalences of alcohol use- and comorbid disorders were higher in the Helsinki metropolitan area, and depressive disorders in northern Finland. Conclusions Mental disorders and their comorbidities are distributed unevenly between sexes and age groups, are particularly associated with marital and employment status, and vary by region. There appears to be no single population subgroup at high risk for all mental disorders, but rather several different subgroups at risk for particular disorders or comorbidity patterns.

Key words mental disorders – epidemiologic studies – prevalence – depressive disorder – alcoholism – anxiety disorders – comorbidity

Introduction

Prevalences of major mental disorders in the general population have been estimated in numerous epidemiological studies and surveys around the world employing operational criteria [1]. These report prevalences of any current disorder as high as 30%, and up to 50% of the population may suffer from some mental disorder during their lifetime. The most common disorders in terms of 12-month prevalences are depressive disorders (4–11%), anxiety disorders (4–19%) and substance use disorders (6–13%) [1–10]. Several studies have also highlighted the common comorbidity of these disorders, and the impact of this on both disorder outcome and health services utilization [11–13].

However, remarkable disparity between countries has been observed in the frequencies of mental disorders [1, 14]. At least part of this variation may be due to methodological differences [10, 15]. Information from...
Subjects and methods

A multidisciplinary epidemiological survey, the Health 2000 Study in Finland, began with a planning phase in 1998. The two-stage stratified cluster sampling frame comprised adults aged 30 years and over living in mainland Finland. Stratification and sampling was conducted as follows: the strata were the five university hospital districts, each serving approximately one million inhabitants and differing in several features related to geography, economic structure, health services and the sociodemographic characteristics of the population [24, 25]. First, the 15 largest cities were included with a probability of one. Next, in each of the five districts, all 65 other areas were sampled, applying the PPS-method (probability proportional to population size). Finally, from each of these 80 areas, a random sample of individuals was drawn from the national population register. Subjects aged 80 years or over were oversampled (2:1) in relation to their proportion in the population.

The data were collected between August 2000 and March 2001, during which period a total of 7419 subjects (65% vs. 39%). who were alive on the day of the first phase of the survey attended one or other phase of the study. Data were collected by home interviews and examinations, telephone interviews and health questionnaires, followed by clinical health examination (6354 subjects), including the structured mental health interview (CIDI). Details of the methodology of the project have been published [25].

The CIDI (Composite International Diagnostic Interview) was performed with 6038 subjects (95% of those attending the comprehensive health examination phase), of whom 33 were excluded due to being clearly unreliable on the basis of mental retardation or self-expressed intention to lie. The total number of reliably performed mental health interviews was 6005, amounting to 75% of the original sample. Compared to participants in the CIDI interview, those who only attended the home interview were found to score significantly more symptoms in the BDI (Beck Depression Inventory) and GHQ-12 (General Health Questionnaire) questionnaires (8.9 vs. 7.1, p < 0.001, 2.2 vs. 1.8, p < 0.001, respectively). They were also older (64 years vs. 52 years, p < 0.001), more often single (17% vs. 11%) or widowed (29% vs. 9%) and had a low-grade education (65% vs. 39%).

Home interview and questionnaires

At the time of the initial home interview (6986 subjects), the subjects were given questionnaires to be returned on arrival at the health examination a few weeks later. During the examination, they were given another set of questionnaires to be mailed back.

The CIDI interview

The mental health interview was performed at the end of the comprehensive health examination. In this study, a Finnish translation of the German, computerized version of the CIDI (M-CIDI) was used [26]. The program uses operationalized criteria for DSM-IV diagnoses and allows the estimation of DSM-IV diagnoses for major mental disorders [27, 28]. Interviews were performed to determine the 12-month prevalences of major depressive episodes and disorder, dysthymia, general anxiety disorder, panic disorder with or without agoraphobia, social phobia, alcohol abuse and dependence, and other substance dependence and abuse. In addition, the M-CIDI gathered information for the longitudinal course, recurrence and different subtypes of depressive episodes. The mean duration of the interview was 23 min (SD 13.8).

The 21 interviewers were mostly non-psychiatric professionals in the health care field. They were trained for the CIDI interview for 3–4 days by psychiatrists and physicians who had been trained by a WHO authorized trainer. The translation of the M-CIDI was made pairwise by psychiatric professionals and revised by others. The existing official Finnish translation of the DSM-IV classification [29] was used as a basis for formulating the interview. The process included consensus meetings, third expert opinions, an authorized translator’s review, and testing with both informed test subjects and unsel ected real subjects.

In a separate analysis, the CIDI interviewers of the project, pairwise independently of each other, examined a consecutive series of 49 visitors in occupational health services to test the test-retest reliability of the depressive disorders section in the interview. The Kappa values for the two interviews were 0.88 (95% CI 0.64–1.0, observer agreement 94%) for major depressive disorder, and 0.88 (95% CI 0.64–1.0, observer agreement 98%) for dysthymia. In depressive disorders, the test-retest reliability was, thus, excellent.

Mental disorders and their comorbidity

The available DSM-IV diagnoses were grouped into categories of depressive-, anxiety- and alcohol use disorders. The category of depressive disorders included the last 12 months’ diagnoses of major depressive disorder or dysthymia. Anxiety disorders included diagnoses of panic disorder (with or without agoraphobia), generalized anxiety disorder, social phobia and agoraphobia (without panic disorder). Subjects with alcohol use disorders included those fulfilling the diagnostic criteria of alcohol dependence or alcohol abuse during the last 12 months. Between them, the diagnostic hierarchy was followed, as in several other similar studies [1]. Comorbidity was defined as subjects having suffered from any disorders from more than one category within the last 12 months. Defined as having mental disorders from more than one of the categories of depressive-, anxiety- and alcohol use disorders, our concept of between-categories comorbidity differs to some extent from many other studies.

Sociodemographic factors

Information on the basic sociodemographic variables was collected in the home interview. These data included age, sex, marital status, education, region of residence, current employment status and professional status. Level of education was classified by years of education...