

Editorial

Towards a better understanding of the size and burden and cost of brain disorders in Europe

This special issue was prepared within the framework of the European College of Neuropsychopharmacology (ECNP) Task Force on “Size and Burden of Mental Disorders in Europe”. The core aim of the Task Force was to describe the prevalence and the burden of treated and untreated mental disorders in all European member states and to highlight needs for further research. Ten state-of-the-art epidemiological papers summarize the outcome of this project, making an attempt to provide for the first time ever prevalence estimates for a wide range of mental disorders, as well as for dementia and Parkinson’s disease in 28 European countries. These data also provide input for the European Brain Council (EBC, <http://www.ebc-eurobrain.net>) Initiative “Cost of Disorders of the Brain in Europe” aiming at estimating the cost of major classes of mental, neurological and neurosurgical disorders and conditions in Europe.

In an unprecedented concerted scientific and organizational effort, several interdisciplinary task forces involving researchers, clinicians, patient organizations, epidemiologists, economists, psychiatrists, psychologists, neurologists and neurosurgeons from over 21 European countries worked together to reach a consensus on what we know about the size, burden and cost of “disorders of the brain” in each European country and—ultimately—in Europe as a whole. For a total of 20 mental and neurological disorders, most of which are dealt with in this issue, systematic reviews of epidemiological studies in EU countries were conducted. Additionally, searches and inquiries were conducted to identify smaller and regional studies as well as those not covered by the major literature search systems. Further reanalyses of existing data sets were performed, and ultimately the results from each of these iterative steps were circulated among all contributors and country-specific experts.

Under the interdisciplinary umbrella of the EBC, the including of various neurological and neurosurgical conditions could ensure a broader coverage of disorders of the brain. Altogether, the project provided a remarkably broad interdisciplinary and European platform of disciplines and

professionals from many countries that have rarely collaborated before in such a challenging task. The methods, procedures and the outcome of this process to evaluate mental disorders, dementia and Parkinson’s disease are summarized in this special issue. Additional publications from this project are published elsewhere (Andlin-Sobocki et al., 2005).

According to the overall findings, over 80 million women and men of all ages in the EU are estimated to suffer from mental disorders or more broadly “disorders of the brain”. Even though only a restricted range of all existing mental and neurological disorders from the ICD-10 or the DSM-IV was considered, there is clear evidence that more than one third of the adult EU population is or has been affected by at least one disorder in the past year, or 50% of the EU population, respectively, if lifetime risk is considered. The enormous degree of burden and suffering that can be associated with these disorders, particularly if no treatment and appropriate care is provided, becomes self-evident. Mental disorders such as schizophrenia, major depression and panic disorder can start as early as in childhood and adolescence. They typically have adverse effects on school and academic career, social functioning and somatic health throughout the life span, and are associated with frequently immense suffering for the families, partners and friends. They are also a major cause of premature mortality, either caused by suicide or by the effects of complications arising from associated risk factors. As the result of the high prevalence of mental disorders, combined with an early onset and an unfavourable long-term course of the illness, the total burden associated with mental disorders is immense. For the greater European Union, the World Health Organisation estimated that of the total burden associated with all medical disorders, over 25% of all “Disability Adjusted Life Years lost” (DALYs) are accounted for by a small number of mental disorders considered. Considering a broader range of brain diseases, Olesen and Leonardi (2003) have suggested even higher estimates of up to 35%.

Such crude projections are undoubtedly of great political and public health interest. However, from a scientific perspective, they are clearly incomplete and unsatisfactory, and they do require further evidence and support through clinical and epidemiological data in order to provide guidance for future action. Burden of disease estimates are neither very informative with regard to single disorders, for example because of the well documented high degree of age-dependent comorbidity, nor could they be generalized to all EU countries, for example because of different socio-demographic and socioeconomic situations. In addition, indicators like DALY estimates tell us little about the met and unmet needs for treatment or about the costs associated with different diseases and in what part of the health care sector these occur.

The ECNP/EBC project initiative “Size and Burden of Mental Disorders” with its epidemiological and health economic extensions is undoubtedly a significant step forward towards a much needed European data base regarding prevalence and cost of mental disorders. Based on the prevalence and burden data presented in this special issue, the project’s health economic estimates for the year 2004 (Table 1) reveal that mental disorders are associated with immense total costs of over 290 billion Euros. The vast majority of these costs are not related to treatment or other health care expenditure, but rather to the indirect costs. Including major neurological and neurosurgical conditions, the cost burden of all brain disorders considered here even amounts to over 387 billion in the year 2004 and for various reasons these numbers must be regarded as conservative figures.

It seems fair to state that most policymakers as well as the public have so far not only underestimated the true size and burden and the cost associated with mental disorders, but might be even unaware of the existence and the significance of many disorders of the brain. The size and the immense cost implications of mental disorders and their further increase due to an aging EU-population clearly call for concerted action on various levels; from substantially increased funding of basic and clinical research to better training and educational programs.

Acknowledgements

This paper was prepared in the framework of the European College of Neuropsychopharmacology (ECNP) Task Force project on “Size and Burden of Mental Disorders in Europe” (PI: Hans-Ulrich Wittchen) supported by funds of the ECNP Council. These data also provide input for the European Brain Council (EBC, <http://www.ebc-eurobrain.net>) Initiative “Cost of Disorders of the Brain in Europe” (CDBE; steering committee: Jes Olesen, Bengt Jönsson, Hans-Ulrich Wittchen).

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Table 1
 Cost of brain disorders in Europe by disease area (€ PPP million)

| | Healthcare costs | Direct non-medical costs | Indirect costs | Total cost € million |
|-------------------------------|------------------|--------------------------|----------------|-------------------------|
| Addiction | 16.655 | 3.962 | 36.657 | 57.274 |
| Affective Disorders | 28.639 | | 77.027 | 105.666 |
| Anxiety Disorders | 22.072 | | 19.301 | 41.373 |
| Dementia | 12.840 | 42.337 | | 55.177 |
| Psychotic disorders | 29.855 | 5.374 | | 35.229 |
| Mental disorders | 110.061 | 51.673 | 132.985 | 294.719 |
| Neurological diseases | 21.286 | 20.259 | 42.389 | 83.934 |
| Neurosurgical diseases | 4.099 | 269 | 3.155 | 7.523 |
| All brain disorders | 135.446 | 72.201 | 178.529 | 386.176 |

Source: Andlin-Sobocki et al., 2005, modified.