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The epidemiology of panic disorder and agoraphobia in Europe☆

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Abstract

A literature search, in addition to expert survey, was performed to estimate the size and burden of panic disorder in the European Union (EU). Epidemiologic data from EU countries were critically reviewed to determine the consistency of prevalence estimates across studies and to identify the most pressing questions for future research. A comprehensive literature search focusing on epidemiological studies in community and clinical settings in European countries since 1980 was conducted (Medline, Web of Science, Psychinfo). Only studies using established diagnostic instruments on the basis of DSM-III-R or DSM-IV, or ICD-10 were considered. Thirteen studies from a total of 14 countries were identified. Epidemiological findings are relatively consistent across the EU. The 12-month prevalence of panic disorder and agoraphobia without history of panic were estimated to be 1.8% (0.7–2.2) and 1.3% (0.7–2.0) respectively across studies. Rates are twice as high in females and age of first onset for both disorders is in adolescence or early adulthood. In addition to comorbidity with agoraphobia, panic disorder is strongly associated with other anxiety disorders, and a wide range of somatoform, affective and substance use disorders. Even subclinical forms of panic disorder (i.e., panic attacks) are associated with substantial distress, psychiatric comorbidity and functional impairment. In general health primary care settings, there appears to be substantial underdiagnosis and undertreatment of panic disorder. Moreover, panic disorder and agoraphobia are poorly recognized and rarely treated in mental health settings, despite high health care utilization rates and substantial long-term disability.

Keywords: Panic disorder; Epidemiology; Panic attacks; Agoraphobia; Burden

1. Introduction

Panic disorder is a severe and persistent mental disorder, associated with a high degree of subjective distress, occupational and social disability (Wittchen, 1988; Klerman et al., 1991). A panic attack (PA) is the core syndrome (not a codable diagnosis) of panic disorder and is defined as a discrete period of intense fear or discomfort accompanied by somatic and psychic symptoms, which may or may not be precipitated by exposure to a phobic stimulus (American Psychiatric Association, 1994, ICD-10, World Health Organization, 1993). Panic attacks typically include acute, somatic symptoms, which can involve cardiovascular, respiratory, neurological-like, and gastrointestinal symptoms, sweating, chills and/or hot flushes and psychological symptoms (i.e., dizziness, unsteadiness, light-headedness, fear of losing control/dying/going crazy). Panic attacks are characterized by sudden onset, rapidly building to a peak usually within 10–30 min, and are accompanied by a sense of imminent danger or impending doom and an urge to escape.

According to DSM IV (APA, 1994), PD is diagnosed when an individual presents both recurrent unexpected

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panic attacks and at least one of the following: (a) persistent concern of having additional attacks, (b) worry about the implications of the attacks and consequences (heart attack, dying, losing control) and (c) a significant change in behaviour as a consequence of the attack. In addition, the diagnosis of PD requires a complex set of differential diagnostic considerations, because the core feature, panic attacks, can also occur in many other conditions and situations, such as a direct physiological consequence of substance use (i.e., caffeine intoxication) or medical conditions (hyperthyroidism) or in the context of other mental disorders (PTSD, social phobia). PD is frequently occurring with agoraphobia (PD with agoraphobia), defined as anxiety about being in places or situations from which escape might be difficult or embarrassing or in which help might not be available in the case that escape is needed. Agoraphobia is characterized by subjective distress and marked avoidance of such situations. AG frequently co-occurs jointly with PD, but may also occur independently (agoraphobia without PD) (APA, 1994). Panic disorder (PD) and associated syndromes and conditions, such as panic attacks (PA) and panic disorder with agoraphobia, have been examined in several epidemiological investigations as well as systematic international reanalyses of existing data sets.

Several studies examining data from prospective-longitudinal studies in the community have focused on panic disorder. Specifically, a number of studies have examined the strength of associations between panic disorder and risk for comorbid anxiety, mood, and substance use disorders. A number of studies have also examined the role of panic attacks as a core psychopathological phenomenon for many mental disorders in an effort to clarify meaningful thresholds for defining psychopathology (Reed and Wittchen, 1998; Goodwin and Hamilton, 2001; Goodwin et al., 2004).

2. Aims

The central aim of this paper is to review epidemiological surveys in the community that provide data on panic disorder with and without agoraphobia in Europe, focusing on identifying similarities and differences of the prevalence rates from various studies. Further, available information on age of onset, comorbidity with physical and mental disorders, and burden associated with panic disorder will be reviewed.

3. Methods

A literature search (Medline, Web of Science, Psychinfo) was performed using the following key words and related terms: epidemiology, prevalence, incidence, community, general population, mental disorders, psychiatric diagnoses/diseases, anxiety, panic attack, panic disorder, agoraphobia. The search was run for years 1990 to 2004 (English language or at least an abstract in English). The search was restricted to the last two decades because the majority of studies from the 1980s were launched in the late 1970s before explicit diagnostic criteria were used. Additionally, experts from several countries were contacted to supplement the search with results from studies not available via electronic search, and to include papers currently in press as well as unpublished data, if accessible. For further details, see Wittchen and Jacobi (2005).

4. Results

4.1. 12-Month prevalence of panic disorder and agoraphobia

A total of 13 national or regional studies, as well as one cross-national study involving six EU countries, were identified and listed in Table 1. None of the studies was designed specifically to study panic disorder. We did not find any epidemiological studies in primary care settings or in other mental and non-mental health specialist settings.

The methodological differences between studies need to be taken into account in interpreting these findings. Specifically, (a) some studies are based only on highly selective cohorts, for example, the Dresden study includes young females only, and the age cohort studies from Zurich and Munich refer to specific age groups or adolescence and young adulthood only; (b) most studies indicate 12-month prevalence estimates (except for the Dresden and the Great Britain study, for which only 1-week cross-sectional rates were reported); (c) seven studies used the Composite International Diagnostic Interview (CIDI, Wittchen, 1994), related instruments (DIS), or modifications thereof (M-CIDI, Wittchen et al., 1998d) to ascertain the diagnostic status. The remaining studies used either the SCAN or study-specific developments. The heterogeneity of diagnostic instruments indicates that the studies might have used different diagnostic algorithms; (d) the majority of prevalence estimates refer to samples with an age range of 18–65. Only one study covers subjects beyond this age.

Accounting for differences in sampling and design, Table 1 reveals a relatively consistent pattern of the 12-month prevalence across all studies.

4.1.1. Panic disorder

The majority of findings on the 12-month prevalence of PD cluster around 2% (median across studies 1.8%). The two studies investigating 1-week prevalence (Becker et al., 2000; Jenkins et al., 1997) reported lower estimates. Lower estimates were also reported from an unpublished report from the Czech Republic (0.3%) and the ESEMED study