Prevalence of Fibromyalgia: A Survey in Five European Countries

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Objective: A survey was performed in 5 European countries (France, Germany, Italy, Portugal, and Spain) to estimate the prevalence of fibromyalgia (FM) in the general population.

Methods: In each country, the London Fibromyalgia Epidemiological Study Screening Questionnaire (LFESSQ) was administered by telephone to a representative sample of the community over 15 years of age. A positive screen was defined as the following: (1) meeting the 4-pain criteria alone (LFESSQ-4), or (2) meeting both the 4-pain and the 2-fatigue criteria (LFESSQ-6). The questionnaire was also submitted to all outpatients referred to the 8 participating rheumatology clinics for 1 month. These patients were examined by a rheumatologist to confirm or exclude the FM diagnosis according to the 1990 American College of Rheumatology classification criteria. The prevalence of FM in the general population was estimated by applying the positive-predictive values to eligible community subjects (ie, positive screens).

Results: Among rheumatology outpatients, 46% screened positive for chronic widespread pain (LFESSQ-4), 32% for pain and fatigue (LFESSQ-6), and 14% were confirmed FM cases. In the whole general population, 13 and 6.7% screened positive for LFESSQ-4 and LFESSQ-6, respectively. 3The estimated overall prevalence of FM was 4.7% (95% CI: 4.0 to 5.3) and 2.9% (95% CI: 2.4 to 3.4), respectively, in the general population. The prevalence of FM was age- and sex-related and varied among countries.

Conclusion: FM appears to be a common condition in these 5 European countries, even if data derived from the most specific criteria set (LFESSQ-6) are considered.

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Fibromyalgia (FM) is currently defined by clinical criteria established by the American College of Rheumatology (ACR) as widespread pain for at least 3 months and the presence of at least 11 of 18 specified tender points on examination (1). Although the combination of these 2 criteria provided a sensitivity of nearly 88% and specificity of 81% in distinguishing FM from other causes of chronic musculoskeletal pain, it is noteworthy that additional complaints, especially fatigue, sleep disturbance, and/or unrefreshing sleep, morning stiffness, paresthesia, and psychological distress, are frequent in FM (1). In this respect, fatigue constitutes 1 of the most troublesome and common problems in these patients (2).

FM is recognized as a common condition in the clinic and a major cause of morbidity worldwide. Based on clinical studies undertaken in various countries, the prevalence of FM in the general population was estimated at between 0.5 and 5% (3). The overall prevalence of FM in the adult United States population was estimated at 2.0% (95% confidence interval [CI]: 1.4 to 2.7) (4). Prevalence was lower in men (0.5%) than in women (3.4%) and increased with age (4). According to a Canadian community survey, FM affects 3.3% (95% CI: 3.2 to 3.4) of adults in London, Ontario, with a female-to-male ratio of roughly 3 to 1 (5). Similar prevalence rates have been reported in Western European countries, including Germany (3.0%, 95% CI: 1.6 to 4.4), Spain (2.4%, 95% CI: 1.5 to 3.2), Italy (2.2%; 95% CI: 1.4 to 3.2), and Sweden (2.5%; 95% CI not provided) (6-9). Conversely, the prevalence of FM was found to be as low as 0.8% (95% CI not provided) in Finland (10) and 0.7% (95% CI: 0.3 to 1.3) in Denmark (11). To our knowledge, no studies have examined the prevalence of FM in France and Portugal.

Possible explanations for the international differences in FM prevalence include differences in diagnostic or classification criteria used by investigators as well as differences in study methodologies (4,5). Furthermore, several studies were done in selected cities or regions (4-6,9), raising the question of whether their results really reflect the prevalence of FM in the country as a whole (4). Finally, the wide range of estimates may partly be related to actual differences in FM prevalence among countries.

The main objective of the present study was to assess the point prevalence of FM in 5 European countries (France, Germany, Italy, Portugal, and Spain) using national probabilistic samples and 1 single screening tool, the London Fibromyalgia Epidemiology Study Screening Questionnaire (LFESSQ). The latter was shown to be a useful instrument in screening for FM in general population surveys of noninstitutionalized adults (12). Our study also aimed at describing the sociodemographic characteristics of patients with FM.

Table 1 The London Fibromyalgia Epidemiology Study Screening Questionnaire

Pain criteria
In the past 3 months:
1. Have you had pain in muscles, bones, or joints, lasting at least 1 week?
2. Have you had pain in your shoulders, arms, or hands? On which side? Right, left, or both?
3. Have you had pain in your legs or feet? On which side? Right, left, or both?
4. Have you had pain in your neck, chest or back?
Meeting the pain criteria requires "yes" responses to all 4 pain items, and either (1) both a right- and left-side positive response, or (2) a both sides positive response.
Fatigue criteria
5. Over the past 3 months, do you often felt tired or fatigued?
6. Does tiredness or fatigue significantly limit your activities?
Screening positive for chronic, debilitating fatigue requires a "yes" response to both fatigue items.

METHODS

Screening Questionnaire

The screening questionnaire used was the LFESSQ developed by the Department of Epidemiology and Biostatistics, Rheumatology Division of the University of London in Western Ontario (12). This 6-item questionnaire was designed with 4 items relating to widespread pain plus 2 items relating to fatigue (Table 1). According to White and coworkers (12), a positive screen was defined in 1 of the 2 following ways: (a) meeting the pain criteria alone (LFESSQ-4), or (b) meeting both the pain and the fatigue criteria (LFESSQ-6). The original LFESSQ was translated into the corresponding idioms of the 5 European countries, with the permission of its authors. All translated versions of the LFESSQ were validated in accordance with the international recommendations on the methodology of quality-of-life questionnaires (13,14).

Rheumatology Outpatients

During a period of 1 month, the LFESSQ was administered to all outpatients over 15 years of age consulting 1 of 8 trained rheumatologists practicing in rheumatology clinics in France ($n = 178$), Italy ($n = 246$), Spain ($n = 239$), Portugal ($n = 268$), and Germany ($n = 194$), regardless of the reason for their visit. In addition, the following sociodemographic characteristics of the patients were recorded: sex, age, marital status, level of education, occupation, and domicile (geographical area and size of the city). Patients who screened positive for either LFESSQ-4 or LFESSQ-6 were then examined to confirm or exclude FM. To be classified as a FM case, patients had to fulfill the ACR criteria for FM, ie, (a) at least 3 months' duration of widespread pain, the distribution of which