Common mental disorders are highly prevalent and have important personal, social, and economic impacts (1–4). Most individuals who need mental health care do not receive it (5–9). We have estimated that 3.1% of the Western European adult population has unmet need for mental health care (10). Unmet needs for social services, general medical care, and mental health care are the main predictors of poor quality of life among persons with a disabling mental disorder (11).

According to Andersen (12), the interaction of perceived health status, need for health care, personal health practices, the health care system, and the external environment may lead to the use of health services. Persons who do not perceive a need for mental health care tend not to use it; however, only a fraction of those who do perceive a need end up using mental health services (13–15). This pattern suggests that perceived need is a necessary but not sufficient factor in accounting for help seeking. Although higher levels of disability and comorbidity are associated with a greater likelihood of perceived need for treatment (15–17), the mechanisms by which clinical features influence perception of need for treatment and subsequent treatment seeking remain unclear (18).

Some public awareness initiatives have been effective in strengthening the link between recognizing a mental health problem and the perception...
of need for mental health care and subsequent help seeking (19–21). However, few data have been reported on the role of perceived need for mental health treatment in help seeking. These data are important in evaluating initiatives aimed at increasing awareness of mental illness (22).

Our main hypothesis was that persons with a mental disorder would be more likely than those without a disorder to perceive a need for mental health care. We also postulated that those with more severe mental disorders would be more likely than those with less severe disorders to perceive a need for care. Finally, we hypothesized that use of mental health care would be far more likely among those who perceived a need for care than among those who did not. Accordingly, our objectives were to estimate the prevalence of perceived need for mental health treatment and to assess the association of mental disorders and their severity with the perception of need for mental health treatment and help seeking among persons who perceived a need for mental health treatment.

Methods
Study design
A detailed description of the European Study of the Epidemiology of Mental Disorders (ESEMeD) project has been provided elsewhere (23,24). Briefly, it was a cross-sectional study that used computer-assisted methods to conduct personal interviews with individuals in their homes. A stratified, multistage, clustered-area, probability sample design was used. Overall, 21,425 respondents were interviewed between January 2001 and August 2003. The interviews were conducted with representative samples of the noninstitutionalized adult populations (age 18 and older) of Belgium, France, Germany, Italy, Netherlands, and Spain, representing about 213 million Europeans. The overall response rate for the six countries was 61%, with the highest rates in Spain (79%) and Italy (71%) and the lowest in France (46%) and Belgium (51%). After potential ESEMeD participants were provided with a complete description of the study, written informed consent was obtained.

In a previous article that described sampling methods used for ESEMeD, we compared the sample with census or official statistics from each participating country and showed that the distribution of age and sex in the ESEMeD sample was representative of the adult general population in each country (24). The project is part of the World Health Organization’s World Mental Health (WMH) Survey Initiative (25). The relevant institutional review boards in each country approved the research protocol.

A two-stage interview procedure was used (26). Two-stage studies are commonly employed in epidemiological research to estimate the prevalence of a specific disease when a high proportion of case-negative individuals is expected and an extensive questionnaire or very invasive tests are required. In the first stage of ESEMeD, all respondents were assessed for the presence of certain mood and anxiety disorders and asked about their use of general medical and mental health services and demographic characteristics. In the second stage, only individuals who screened positive for the specific mood and anxiety symptoms in stage 1 (high-risk individuals) plus a random subsample of 25% of respondents without these symptoms (low-risk individuals) were assessed for additional mental disorders, health-related information, and risk factors. For the study reported here, we analyzed the stage 2 subsample only (N=8,796), which is representative of the populations of the six countries because weights were applied to correct for the probability of selection for stage 2.

Assessment of mental disorders
The study reported here used diagnostic categories for a subgroup of common mental disorders assessed in the stage 2 sample with the Composite International Diagnostic Interview 3.0 (CIDI)—the latest version of this instrument developed by the WMH Survey Consortium (27): mood disorders (major depressive episode and dysthymia), anxiety disorders (social phobia, specific phobia, generalized anxiety disorder, agoraphobia with or without panic disorder, panic disorder, and posttraumatic stress disorder), and alcohol abuse or dependence. The CIDI uses DSM-IV and ICD-10 criteria to obtain psychiatric diagnoses; however, in the study reported here only DSM-IV diagnoses were used. Good concordance between the CIDI and the Structured Clinical Interview for DSM-IV has been shown in clinical reappraisal interviews (28,29).

When a lifetime disorder was diagnosed, its presence during the 12 months before the interview was ascertained. When an individual reported that the mental disorder “interfered a lot with my life or activities” in the past 12 months, the disorder was classified as disabling (10). Respondents were classified in one of five mutually exclusive categories along a continuum of psychiatric morbidity: no lifetime mental disorder or any lifetime subthreshold mental morbidity; no lifetime mental disorder, any lifetime subthreshold mental morbidity (that is, symptoms did not meet all diagnostic criteria); lifetime mental disorder but no 12-month disorder; 12-month mental disorder that is not disabling; and disabling 12-month disorder. Respondents who had a 12-month mental disorder were classified according to three broad classes of commonly occurring disorders: any 12-month mood disorder, any 12-month anxiety disorder, or any 12-month alcohol disorder.

Perceived need for and use of care
All respondents were asked to report any visit to a health professional (psychiatrist, psychologist, social worker, counselor, general family physician, or any other medical doctor) because of concerns with their “emotions or mental health.” Lifetime visits and visits in the past 12 months were assessed. Respondents who reported not having used health services for this reason were asked whether they had “perceived some need for mental health care.” Those who reported having used health services for this reason were asked whether they did so because they felt that they needed such services, because someone else forced them to go even though they did not think they needed services, or because both they and someone else
felt that they needed professional
help. When respondents reported
that they perceived a need or that
they had voluntarily sought services,
such information was considered a
good proxy for perceived need for
mental health care. (In our sample,
only 12% of respondents who used
mental health services stated being
coerced into care.) Analysis of per-
cieved need for mental health care
and use of services was restricted to
the previous 12 months.

Statistical analyses
Bivariate analyses were conducted.
Separate multivariate logistic regres-
sion models were constructed to assess
the independent contributions of men-
tal health status and sociodemographic
characteristics to perceived need for
care among all the respondents (mod-
elf 1) and to the likelihood of using
health services for emotional or mental
health problems among those who re-
ported a perceived need for mental
health care (model 2). In both logistic
regression models, we chose not to use
any specific country as a reference cat-
egory. Instead, we chose effect coding
over the more popular dummy coding.
This approach allowed us to test the
deviation of each country from an “av-
erage European” effect and to avoid
having to omit one of the six country
effects in order to present the regres-
sion models.

The models were estimated with
SAS software for Windows, version 8,
(30) and SUDAAN software, version
8.01 (31) to adjust for the weighting
and clustering of the ESEMeD data
by use of the Taylor series lineariza-
tion method. Data for individuals
were weighted to correct for the dif-
ferent probabilities of selection and
for age and gender distribution of
each country’s population and the rel-
ative dimension of the population ac-
cross countries.

Results
As shown in Table 1, the mean age of
respondents was 47 years, slightly
more than half (52%) were women,
and two-thirds had no postsecondary
education. A majority (57%) of re-
spondents were employed. Two-thirds
(67%) were married or cohabiting.

As shown in Table 2, which reports
the weighted percentages, 9% of the
sample perceived some need for
mental health care in the past 12
months. In the five mutually exclusive
categories, perceived need ranged
from 4% of those with neither a life-
time disorder nor a subthreshold life-
time disorder to 44% of those with a
disabling 12-month mental disorder.
Perceived need was highest among
respondents with any 12-month
mood disorder (50%). Among those
with perceived need for mental
health care, 70% used some kind of
professional help in the past 12
months, ranging from 62% of those

Table 1
Characteristics of 8,796 respondents in six countries who screened positive for
specific mood and anxiety symptoms in stage 1 of the European Study of the
Epidemiology of Mental Disordersa

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N</th>
<th>%</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (M±SD)</td>
<td>47.0±29.1</td>
<td>46.4–47.7</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>18–24</td>
<td>664</td>
<td>11.4</td>
<td>10.3–12.7</td>
</tr>
<tr>
<td>25–34</td>
<td>1,599</td>
<td>18.3</td>
<td>17.1–19.6</td>
</tr>
<tr>
<td>35–49</td>
<td>2,669</td>
<td>27.8</td>
<td>26.4–29.2</td>
</tr>
<tr>
<td>50–64</td>
<td>2,197</td>
<td>21.8</td>
<td>20.5–23.1</td>
</tr>
<tr>
<td>≥65</td>
<td>1,667</td>
<td>20.7</td>
<td>19.3–22.1</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>3,689</td>
<td>48.2</td>
<td>46.6–49.9</td>
</tr>
<tr>
<td>Female</td>
<td>5,107</td>
<td>51.8</td>
<td>50.1–53.4</td>
</tr>
<tr>
<td>Education (years)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0–12</td>
<td>5,515</td>
<td>65.4</td>
<td>63.8–66.9</td>
</tr>
<tr>
<td>≥13</td>
<td>3,281</td>
<td>34.6</td>
<td>33.1–36.2</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married or cohabiting</td>
<td>5,788</td>
<td>66.8</td>
<td>65.2–68.3</td>
</tr>
<tr>
<td>Previously married</td>
<td>1,327</td>
<td>11.1</td>
<td>10.2–12.2</td>
</tr>
<tr>
<td>Never married</td>
<td>1,681</td>
<td>22.1</td>
<td>20.7–23.6</td>
</tr>
<tr>
<td>Living arrangement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aloneb</td>
<td>1,636</td>
<td>15.4</td>
<td>14.2–16.6</td>
</tr>
<tr>
<td>With someone</td>
<td>7,160</td>
<td>84.6</td>
<td>83.4–85.8</td>
</tr>
<tr>
<td>Environment (population)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural area (&lt;10,000)</td>
<td>2,525</td>
<td>33.2</td>
<td>31.5–34.9</td>
</tr>
<tr>
<td>Midsize urban area (10,000–100,000)</td>
<td>3,840</td>
<td>38.7</td>
<td>37.1–40.4</td>
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<tr>
<td>Large urban area (&gt;100,000)</td>
<td>2,431</td>
<td>28.1</td>
<td>26.6–29.6</td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed or self-employed</td>
<td>4,863</td>
<td>56.5</td>
<td>54.9–58.1</td>
</tr>
<tr>
<td>Student</td>
<td>172</td>
<td>2.8</td>
<td>2.3–3.3</td>
</tr>
<tr>
<td>Homemaker</td>
<td>986</td>
<td>9.1</td>
<td>8.3–10.0</td>
</tr>
<tr>
<td>Retired</td>
<td>1,881</td>
<td>23.5</td>
<td>22.1–25.0</td>
</tr>
<tr>
<td>Other</td>
<td>894</td>
<td>8.1</td>
<td>7.2–9.0</td>
</tr>
<tr>
<td>Country</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belgium</td>
<td>1,043</td>
<td>3.8</td>
<td>3.3–4.3</td>
</tr>
<tr>
<td>France</td>
<td>1,436</td>
<td>20.5</td>
<td>19.5–21.6</td>
</tr>
<tr>
<td>Germany</td>
<td>1,323</td>
<td>31.5</td>
<td>30.3–32.7</td>
</tr>
<tr>
<td>Italy</td>
<td>1,779</td>
<td>22.4</td>
<td>21.1–23.8</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1,094</td>
<td>6.1</td>
<td>5.7–6.6</td>
</tr>
<tr>
<td>Spain</td>
<td>2,121</td>
<td>15.6</td>
<td>14.8–16.5</td>
</tr>
<tr>
<td>Mental health status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No lifetime mental disorder, no lifetime subthreshold morbidity</td>
<td>3,315</td>
<td>58.5</td>
<td>56.9–60.1</td>
</tr>
<tr>
<td>No lifetime mental disorder, any lifetime subthreshold morbidity</td>
<td>1,334</td>
<td>15.6</td>
<td>14.4–16.8</td>
</tr>
<tr>
<td>Any lifetime mental disorder, no 12-month mental disorder</td>
<td>2,296</td>
<td>14.0</td>
<td>13.1–14.9</td>
</tr>
<tr>
<td>Any 12-month mental disorder</td>
<td>1,851</td>
<td>11.9</td>
<td>11.1–12.9</td>
</tr>
<tr>
<td>12-month mental disorder severity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nondisabling disorder</td>
<td>783</td>
<td>6.6</td>
<td>5.8–7.4</td>
</tr>
<tr>
<td>Disabling disorder</td>
<td>1,068</td>
<td>5.4</td>
<td>4.9–5.9</td>
</tr>
</tbody>
</table>

a Actual Ns and weighted percentages (weighted to the general populations of the six countries)
b No one over age 18 lives with the respondent.
with a nondisabling 12-month mental disorder to 82% of those with a disabling 12-month mental disorder. The proportion of respondents without perceived need who used health treatments to address concerns about emotions or mental health was much smaller—11% for those with a disabling 12-month mental disorder (data not shown).

Table 3 shows that the prevalence of perceived need ranged from 5% in Italy to 14% in France. Among those with a 12-month mental disorder, the proportions with perceived need were more homogeneous, with the largest proportions in France (38%) and Spain (37%) and the smallest in Germany (28%) and Italy (28%).

After adjustment for all other variables, a gradient in the likelihood of perceiving need for mental health care was found along the continuum of psychiatric morbidity (Table 4, model 1). Respondents with any disabling 12-month mental disorder had the highest likelihood (odds ratio [OR]=16.9). Age was significantly associated with the likelihood of perceiving need for mental health care, peaking in the 35–49 age group (OR=2.2). Men were less likely than women to perceive need for mental health care (OR=.6). Those living in Belgium had a significantly higher likelihood of perceiving need for mental health care (OR=1.4), and those living in Italy showed a significantly lower likelihood (OR=.6).

Model 2 indicates that the only factor related to mental health that was associated with use of services among those with perceived need was having a disabling disorder in the past 12 months (OR=2.4) (Table 4). Living in a rural setting was associated with a higher likelihood of use among those with perceived need (OR=2.2), as was living in Germany (OR=1.8). Respondents who were younger (18 to 24 years) also had a lower likelihood of using services.

Discussion
The main findings sustained our three hypotheses. In brief, those with a mental disorder had a higher likelihood of perceiving need for mental health care than those without a mental disorder, greater severity of mental disorders was associated with a higher likelihood of perceiving need for care and, respondents who perceived a need for care had higher rates of use of mental health care.
Limitations

Our results should be considered in light of some limitations. First, we studied only the 12-month period before the interview. Some respondents who were classified as not having used services may have used them after the interview (12,32). However, our previous study of unmet need for mental health care, which found that 20% of respondents reported lifetime need for care (10), suggests that such misclassification is minimal. A second limitation is that our definition of perceived need encompasses only subjective need for care. Nevertheless, the perception of need (subjective need) is one of the main factors contributing to help-seeking behavior for common mental disorders. In addition, help seeking is not equivalent to the receipt of adequate and evidence-based care. Our aim, however, was to explain the high rates of unmet need for mental health care in this sample that were found in our previous study (10). In this article, we have not addressed the complex issue of adequate treatment for mental disorders, which we have examined in depth in our previous work (33).

A third limitation is that we did not analyze specific mental disorders; in-
instead, we looked at a combination of mood disorders, anxiety disorders, and alcohol abuse or dependence. Although it is likely that our results would hold true for specific mental disorders, the magnitude of certain findings may differ for specific disorders. Also, we must point out that the category “no lifetime mental disorders” indicates only those disorders specifically assessed in our study. Fourth, we classified respondents who voluntarily used health services to address emotional or mental health problems as having perceived need for care; only those who did not use health services were asked whether they perceived a need for care. This may have inflated our estimates of perceived need. Nevertheless, this approach has been used in several previous studies (13,14), and it facilitates comparability of results. Finally, although it might be argued that the low response rates in Belgium (51%) and France (46%) might have biased our results, we performed a sensitivity analysis that excluded these two countries from the model, which yielded results consistent with those presented here and did not modify the direction or the magnitude of the associations (data available on request).

**Correlates of perceived need**

In our study presence and severity of common mental disorders were major predictors of perceived need, although other personal characteristics (being female and being older) were positively and independently associated with perception of need. Previous studies reported an association between psychiatric status and the perception of need. Mojtabai and colleagues (15) reported a 32% prevalence of perceived need for care among those with 12-month mental disorders. In that study, personal characteristics (such as age and gender) and insurance coverage showed an independent positive association with perceived need for care. As in our study, Mojtabai and colleagues found that men had a lower likelihood of perceiving need for mental health care. Our study confirms the importance of age and gender in the perception of need for care. We also found that respondents in rural areas had a lower likelihood of perceiving need for care, which translates into a lower rate of service use in rural settings, although use was higher among those with perceived need for care.

**Correlates of use of care**

We found that perceived need was a major predictor of help seeking. Respondents with perceived and a disabling 12-month mental disorder had an eightfold higher prevalence of help seeking than those in the same category but without perceived need. Overall, 30% of those with perceived need for care did not seek care, and more than a fourth of those with a 12-month disorder who had perceived need did not use the services in the previous year. This suggests that although perceived need is the main factor mediating help seeking, it alone does not account for use of services among those with mental disorders.

Our finding that the role of perceived need for care in triggering help-seeking behavior differs across countries is consistent with the findings of Katz and colleagues (13). One explanation may be that some barriers to care preclude help seeking. Although detailed analyses of perceived barriers to care were beyond the scope of this study, this is an approach worthy of further investigation. It seems reasonable to assume that most of the reasons that people perceive for not seeking help are amenable to change with adequate educational measures.

In our study several sociodemographic variables were associated with health service use. It seems likely that this association is explained by underlying factors, such as stigma, as well as cultural factors, the availability of health care resources, and differences in health systems across countries. Living in midsized and rural settings and being older were both significantly associated with a higher likelihood of use of health services among respondents with perceived need for care. Several studies have confirmed the association of age and use of services, but the association of urbanicity is inconsistent (34–36). However, there is little doubt that the perception of need for mental health care does not account for all use of health services to address emotional or mental health problems and that subgroups of persons with mental disorders who need care could be identified on the basis of nonpsychiatric factors as target populations for interventions to prompt help seeking.

**Cross-country variation**

We found cross-country differences in the prevalence of perceived need for mental health care when we adjusted for clinical and sociodemographic variables. Respondents living in Italy were less likely to perceive need for mental health care, and those living in Belgium had the highest likelihood. International variation in the perception of need may be due to differences in the general public’s perceptions of mental disorders, as reflected in knowledge about mental disorders and the amount of mental–health–related stigma (37,38). Although few studies have compared the role of perceived need for care and help seeking for mental health problems in different countries, differences across countries in perceived need and use of services have been observed in previous studies. For instance, as noted above Katz and colleagues (13) found that the relationship between perceived need for care and actual use of health services may differ by country. Potential explanations include factors ranging from cultural issues (for example, stigma associated with mental disorders) to real differences in the prevalence of mental disorders. Our results are consistent with those found in our previous analyses (39) and with those of other authors (40). Our findings of differences in service use across countries are also consistent with those of previous studies (41). We previously reported that countries with fewer resources allocated to mental health (that is, Italy and Spain in our sample) showed a trend toward lower rates of health care use for mental health reasons (10).

The likelihood of using health services to address emotional and mental health problems among persons with perceived need for mental health care was highest in Germany; it may
be that there is a greater degree of accessibility of services in the German health system. The differences across countries suggest that although a person's knowledge that he or she has a mental disorder is paramount for perceiving need for care, perception of need in itself is not sufficient to trigger help seeking. Arguably, this suggests that interventions that increase the awareness of having a mental disorder among persons who have such disorders may lead to their greater use of health services by enhancing their perception of need for care.

Implications

Given that less than 30% of those with a mental disorder make contact with services to address mental health problems in a given year (10), our results point to the need for public health interventions to increase awareness of mental disorders and effective treatments among those at highest risk of not receiving needed help. These groups include younger individuals, men, persons living alone, and persons living in urban settings. Further research on why those with perceived need had a higher likelihood of receiving care in some countries could help identify factors related to increased access for those who need care. Whether knowledge of such factors would lead to higher use of health services by persons who are sometimes labeled “the worried well” (42,43) is also an issue for additional research.

Conclusions

Our findings indicate that having a mental disorder is the most important factor for perceiving need for care. The highest perception of need was among those with more impairing and more recent mental disorders. Nevertheless, only a third of those with a 12-month mental disorder reported perceived need for care. This highlights the need for awareness interventions that improve the perception of need among those suffering from mental disorders (22). In addition, our study found that almost a third of those with perceived need for care did not use services. Although some sociodemographic characteristics were associated with lower use of mental health care—younger age, urban residence, and living in Italy—our results suggest the existence of other barriers to use. Such barriers need to be further investigated, and effective strategies to overcome them should be implemented to diminish the high rates of unmet need for mental health care (10,44).

Acknowledgments and disclosures

The ESEMed project (www.eremen.org) was funded by the European Commission (contracts QLGS-1999-01042 and SANCO 2004123); the Piedmont Region (Italy); Fondo de Investigación Sanitaria, Instituto de Salud Carlos III, Spain (contract FIS 00025-02); Ministerio de Ciencia y Tecnología, Spain (contract SAF 2000-155-CE); Departamento de Salut, Generalitat de Catalunya, Spain; and other local agencies and by an unrestricted educational grant from GlaxoSmithKline. ESEMed is carried out in conjunction with the World Health Organization World Mental Health (WMH) Survey Initiative. The authors thank the WMH staff for assistance with instrumentation, fieldwork, and data analysis. These activities were supported by the John D. and Catherine T. MacArthur Foundation, the Pfizer Foundation, the U.S. Public Health Service (grants 1R13-MH-066849, R01-MH-069964, and R01-DA-016358), Eli Lilly and Company, GlaxoSmithKline, Ortho-McNeil Pharmaceuticals, and the Pan American Health Organization.

The authors report no competing interests.

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