Epidemiology of mental disorders in Spain: methods and participation in the ESEMeD-Spain project

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La epidemiología de los trastornos mentales en España: métodos y participación en el proyecto ESEMeD-España

Summary

Introduction. *The ESEMeD-Spain study is part of a European project on the epidemiology of mental disorders, which is also part of a World Health Organization initiative called World Mental Health Surveys. The main objectives of the study are to estimate the prevalence of mental disorders in Spain; to analyze their association with sociodemographic variables and predisposing and protective factors; to evaluate their impact on the quality of life; and to describe and evaluate the health care received by people with mental disorders.*

Methods. *A representative sample of the non-institutionalized Spanish population older than 18 years is interviewed. Sample size is 5,500 people. The instrument used in the interviews is the Composite International Diagnostic Interview (CIDI), a questionnaire designed to be used by lay interviewers that allows the diagnosis of psychiatric disorders. Strict quality control of field work has been established. Furthermore, approximately 200 subjects are re-interviewed by a psychiatrist using the Structured Clinical Interview for DSM-IV (SCID) and several questionnaires to measure clinical severity.*

Results. *Field work started in September 2001 and finished in November 2002. Up to April 2002, more than 4,300 people have been interviewed. Preliminary response rate has been 68.7%.*
Comparison of the age and gender of the study sample with the general Spanish population shows high representativeness.

Conclusions. *The ESEMeD-Spain project will produce un - precedented scientific information about the epidemiology of mental disorders in Spain.*

Key words: *Epidemiology. Psychiatry. Mental health. Spain. Depressive disorders. Anxiety disorders.*

Resumen

Introducción. *El estudio ESEMeD-España es parte de un proyecto europeo sobre epidemiología de los trastornos mentales enmarcado dentro de una iniciativa de la Organización Mundial de la Salud llamada Encuestas de Salud Mental en el mundo. Los objetivos del estudio son estimar la prevalencia de los trastornos mentales en España; analizar su asociación con variables sociodemográficas y factores predisponentes y protectores evaluar su afectación sobre la calidad de vida, y describir y evaluar la atención sanitaria que reciben las personas con trastornos mentales.*

Métodos. *Se entrevista a una muestra representativa de la población española mayor de 18 años no institucionalizada. El tamaño muestral es de 5.500 personas. El instrumento de evaluación es la nueva versión de la Entrevista Diagnóstica Internacional (*Composite International Diagnostic Interview, CIDI), *una entrevista diseñada para ser utilizada por personal lego que permite el diagnóstico de los principales trastornos mentales. Se ha establecido un riguroso control de calidad del trabajo de campo. Además, aproximadamente 200 personas son reentrevistadas por un psiquiatra utilizando la Entrevista Clínica Estructurada para el DSM-IV* (Structured Clinical Interview for DSM-IV, SCID) *y diversos cuestionarios de gravedad clínica.*

Resultados. *El trabajo de campo del estudio ESMeD se inició a mediados de septiembre de 2001 y ha finalizado en noviembre de 2002; los análisis de las primeras 4.300 entrevistas muestran una tasa de respuesta del 68,7%. La comparación de la edad y el género de la muestra obtenida con la población general española muestra unos altos niveles de representatividad.*

Conclusiones. *El proyecto ESEMeD-España producirá una información científica sobre la epidemiología de los trastornos mentales sin precedentes en nuestro país.*

Palabras clave: *Epidemiología. Psiquiatría. Salud mental. España. Trastornos depresivos. Trastornos ansiosos.*

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INTRODUCTION

The ESEMeD-Spain study is part of a project on epidemiology of mental disorders that is being carried out in six countries of the European Community (Germany, Belgium, France, Holland, Italy and Spain). In turn,

ESEMeD is included within an initiative of the World Health Organization called World Mental Health Surveys and its objective is to coordinate epidemiological studies on mental disorders in countries of five continents. This initiative aims to estimate homogeneously the frequency and disability associated to mental disorders in socioeconomic settings and different cultures. The ESEMeD-Spain study counts on the economic support of the European Commission, the Health Care Research Fund of the Instituto de Salud Carlos III, the Ministry of Science and Technology, the Servei Català de la Salud-CatSalut and Glaxo SmithKline.

Epidemiology of mental disorders: situation in Spain

Towards the end of the 1970's and during the decade of the 80's, psychiatric epidemiology advanced considerably when it incorporated the determination of psychiatric diagnosis into population studies. In Europe, this was possible thanks to the double phase studies[1], in which a screening questionnaire was administered to a sample of the population (generally the General Health Questionnaire[2]) to detect possible cases of mental disorder and, later a clinical interviewer, generally a psychiatrist, evaluated a proportion of these persons, using a semistructured interview (for example, the Present State Examination[3]). This methodology made it possible to reliably establish the diagnoses of the syndromic groups of the mental disorders, following the ICD-9 classification. However, the double phase design greatly limited the diagnoses studied to those which were really detected by the screening instrument. The diagnostic instrument generally used (Present State Examination, PSE-9) only made it possible to estimate point prevalence, that is, at the time of the interview, and not the year-prevalence or life-prevalence.

Spain incorporated these advances through the Cantabria[4], del Valle de Baztán[5] and del Baix Llobregat[6] studies. The Vázquez-Barquero study[7] in Cantabria found a point prevalence of suffering mental disorders that was 9.3 % in men and 19.6 % in women while the two other studies obtained a superior global prevalence of approximately 24%. Protective factors were being between 30 and 44 years of age, being single, working and having a high education level.

However, these projects had different limitations as they were carried out in relatively small and non-representative areas of all the sociodemographic settings of the country[8] and, at times, due to the low number of persons interviewed.

Parallelly, with the appearance of the DSM-III operative criteria for psychiatric diagnosis, a new generation of instruments that could be administered by lay personnel in mental health and that made it possible to obtain psychiatric diagnoses began to be developed in the United States (Diagnostic Interview Schedule [DIS])[9]. This development opened the door to large population studies, in which adequately trained professional interviewers administered diagnostic instruments to a representative sample of the population. Thus, the Epidemiologic Catchment Area[10] was born and afterwards, the National Comorbidity Survey[11], that already used the Composite International Diagnostic Interview (CIDI)[12,13], an interview created by the WHO based on the methodology developed in the DIS. These studies showed that a large proportion of United States of America citizens suffered psychiatric disorders that could be diagnosed with precise nosological criteria (prevalence-year exceeded 20 % in the United States). They also showed that only a small part of them obtained professional treatment and that the risk of suffering mental disorders is associated to certain factors such as gender and belonging to the more unfavorable social classes.

Some European countries, such as Germany[14] and Holland[15] have made studies with CIDI in representative samples of the country, with prevalence rates and results similar to those described in the USA. For example, the Dutch study NEMESIS found that the most frequent disorders were alcohol abuse in men and major depression in women, repeating the pattern of greater prevalence of anxious-depressive disorders in women and disorder due to substance use in men. The global prevalence of mental disorders was similar in both genders. Life prevalence of suffering a psychiatric disorder was about 40% and prevalence-year 23%. In the United Kingdom, a large population study was also carried out[16], however, instead of using the CIDI, a new interview was created, the Clinical Interview Schedule-Revised (CIS-R). The CIS-R obtains results that are not comparable with other studies because it does not use the same criteria for diagnosis, because it only makes it possible to calculate point prevalence and it does not include all the range of psychiatric diagnoses. According to this study, the punctual prevalence of the depressive episode was 2.1 %, that of disorder due to alcohol dependence or abuse 4.7% and that of some neurotic disorder 16.0%.

In Spain, the CIDI or DIS has only been used in studies restricted to specific populations (women, elderly the homeless)[17-19], so that they have a very limited usefulness to assess the prevalence of mental disorders in the general population. The only epidemiological project of depression in the general population of all Spain is the DEPRES[20]. This study, which used the Mini-International Neuropsychiatric Interview (MINI) depression model[21] for the assessment of the subjects has serious methodological problems, since it permitted the substitution of the cases that rejected the interview during the field work. Thus, the validity of the data is high debatable.

The last studies published continue to focus on population groups or on reduced geographic zones. A recent European project studied the prevalence of mental disorder in the elderly population [17,22,23]. Prevalence of depression in the population over 65 years in Zaragoza was 10.7%, which places it among the lowest in Europe. Finally, three studies were performed with the Schedules for Clinical Assessment in Neuropsychiatry (SCAN) as

diagnostic instrument[24,25,26]. One of them, as part of a follow-up study, interviewed 290 subjects of 18-year old[24]. Almost 30% of the subjects presented a mental disorder, following the ICD-10 criteria (21% if we use DSM-III-R criteria). The most frequent disorders were those of sleep (insomnia in 13% of the subjects), followed by depressive (11.7%) and anxiety (9.0%) ones. A double phase design study performed in Formentera found a 21.4 % prevalence of mental disorders, the most frequent being, in this order, neurotic, somatoform, substance use and sleep disorders. The use of the classic category «neurotic disorders» makes the comparison of the results with the studies that use the DSM diagnostic classification difficult. Ayuso-Mateos et al. published a European study on the prevalence of depression in nine regions. Cantabria, with a point prevalence of 1.8 % of major depression and 0.5% of dysthymia, had values that were much lower than the rest of the areas (global mean of 6.7% of depression and 1.0% of dysthymia).

In summary, in spite of the many studies performed, knowledge of the epidemiology of the mental disorders in Spain is still fragmented and data must be used from other countries when prevalence values of mental diseases, and estimations of the load that they represent in the population, are needed.

Pending challenges

Up to now, the large epidemiological studies in mental health have basically focused on the diagnosis of mental disorders, with the main objective of estimating the prevalence and of studying sociodemographic risk factors of the main psychiatric disorders[27]. However, there is wide consensus that the psychiatric diagnosis is clearly insufficient to define their seriousness[28], so that it is difficult to extrapolate the prevalence values in terms of relevance or social load. Furthermore, estimations of the uncovered care need that arise from them are limited for two reasons: first, as has been said, the studies lack instruments to assess disability correctly[29] and the interference that the mental disorders produce in the quality of life and social adaptation; second, the assessment of the treatments received is brief and not very reliable. Due to this, it is difficult to judge the relevance of the finding that only a part of these persons receives treatment.

In spite of the emphasis on the estimation of the frequency of the diseases, prevalence of many disorders presumed to be frequent and that cause high demand for medical care (personality disorders, somatoform disorders and comorbidity of the psychiatric disorders with the medical disease) remains to be evaluated. To a great degree, the frequency of the disorders in childhood and the risk that they mean for the development of other problems in the adult life are unknown. Furthermore, the sub-threshold syndromes that do not have sufficient intensity to fulfill diagnostic criteria of mental disorder have been insufficiently analyzed[30]. Due to the absence of measurements of disability and quality of life it is not possible to assess the real importance of these sub-threshold syndromes, in the sense of knowing the load that they can represent for the persons who suffer them.

Several studies have found important differences in the frequency of mental disorders between the countries[31,32]. However, it is difficult to distinguish how many of these differences are real and how many arise from methodological variations: many of them evaluate relatively small areas, the method of sample selection differs, and there is even a lack of equivalence in the questionnaires used.

The Global Burden of Disease[33] study manifested that mental disorders represent one of the main causes of disability in the world. The estimations used arise from previously described epidemiological studies. However, faced with the lack of population data, the estimations of disability associated to the disorders basically came from clinical populations and experts' opinion, which represents a significant methodologic limitation and has reduced the impact that these results could have had in the health care policy of the countries[34]. Thus, the WHO started the initiative World Mental Health Surveys, which aims to overcome the principal challenges of psychiatric epidemiology on fostering the performance of national epidemiological studies that uniformly evaluate prevalence, disability associated and care and treatment received by the persons with mental disorders. New methodological developments will make it possible to reach these objectives. In the first place, instruments that evaluate clinical severity and disability are incorporated into the CIDI interview, which makes it possible to measure both seriousness and disability associated to each one of the disorders detected. Disability that includes both that associated to psychiatric as well as physical disorders. Furthermore, while the previous versions of the CIDI emphasized the values of life-prevalence, the new version will determine year-prevalence and month-prevalence with much greater accuracy, these being much more useful to assess population needs. All these advances would not be possible without taking advantage of the development of potent computerized tools for the computerized administration of the interviews. Most of the studies of this WHO initiative will be performed by CAPI (Computer Assisted Personal Interview), that allow for the efficient administration of complex questionnaires that incorporate logical and random skips, internal quality controls for the reduction of errors and reduce the administration cost on preventing the tedious entry of data collected in written questionnaires.

Objective of the ESEMeD-Spain study

The objectives of the ESEMeD-Spain study are:

1. Estimate month-prevalence, year-prevalence and life-prevalence of the most frequent mental disorders (mood, anxiety, substance use and other

disorders). Table 1 shows the psychiatric disorders evaluated.
2. Analyze association of the mental disorders with the sociodemographic characteristics (gender, age, educational level, occupation, residence site) and with other predisposing factors (experiences during childhood, partner relationship, vital events).
3. Evaluate the effect of the mental disorders (fundamentally mood and anxiety disorders) on the quality of life (disability, handicap and perception of status health). Their interaction with medical diseases and the influence of the sociodemographic factors on these relationships.
4. Study the relationship between the existence of a mental disorder in the partner and the quality of the partner relationship.
5. Describe and assess the health care received by the persons with mental disorders, type and correctness of treatment received and the uncovered care needs.
6. Evaluate the degree of concordance of the diagnoses of the structured interview CIDI with the semistructured psychiatric interview SCID[35].

In addition to these objectives, in the combined European project, international comparisons will be performed on the results of each country, in order to distinguish prevalence differences, how the different health care structures cover the treatment needs and assess the degree of uncovered need (table 1).

TABLE 1. List of sections contained in the CIDI-2000

Disorders	*Section*	*Number of items*	*Administration time**
	Screening	51	9.60
Anxiety disorders	Panic disorder	165	2.15
	Specific phobia	163	3.42
	Social phobia	120	4.76
	Agoraphobia	110	4.13
	Generalized anxiety	185	1.63
	Post-traumatic stress disorder	813	6.58
	Obsessive-compulsive disorder	155	1.45
Mood disorders	Depression	232	2.08
	Dysthymia	86	0.47
	Suicidality	40	0.60
Personality disorders	Personality, part 1	55	5.77
	Personality, part 2	20	2.73
	Screening of personality disorder	34	3.77
Disorder initiating in childhood and adolescence	Attention deficit and hiperactivity	147	1.92
	Behavior disorder	67	2.45
	Oppositional defiant disorder	68	1.38
	Separation anxiety disorder	111	2.73
Other disorders	Substance abuse	386	2.27
	Eating disorder	86	0.18
	Premenstrual dysphoric syndrome	72	1.47
	Psychosis screening	21	1.07
	Chronic diseases	184	5.53
Quality of life and risk factors	Functioning (WHODAS)	59	4.78
	30 day symptoms (NSD)	26	0.98
	Euro-Qol	6	0.85
Sociodemographic	Family load	87	1.87
	Employment + partner employment	60+23	1.23
	Finances	14	3.05
	Matrimony	86	0.68
	Demographic	108	1.60
	Care of children	46	0.38
	Childhood	211	0.95
Use of services	Pharmacoepidemiology	337	2.23
	Services	245	0.48

*Mean time of the interviewers took administer each section.

METHODS

Sample

This project consists in a cross-sectionel face-to-face household survey given to a representative sample of the Spanish population over 18 years of age, who are not institutionalized (individuals who live in prisons, hospitals, hotels or other institutions were excluded). The persons who temporally live away from their homes were interviewed if they returned to it within four months of their selection (duration of the field work). Substitution of the non-responders was not allowed in any case, to assure that each individual had a known probability of being selected.

The main sample is made up of 5,000 individuals. In order to assure a representativeness of each one of the regional communities and of the types of population, sample selection was performed in a stratified way by regional community and size of municipality (less than 10,000 inhabitants, from 10,001 to 50,000, from 50,001 to 250,000 and over 250,000 inhabitants). Based on the data obtained from the National Institute of Statistics (March 2000 electoral census of residents), a total of 68 levels, 4 levels for each one of the 17 regional communities, were created. Within each level, some census sections proportional to level size were selected. The total number of census sections selected was 750. Nine individuals were selected per census section and a minimum response index of 65% was expected. The selection of the homes within each census section was performed randomly from the listing of all the homes within this section. The list of household was made using all the addresses included in the census section. Based on the list of household and considering the total number of household, and that a specific number of homes should be selected, a gamma value was established for the systematized random sample of the household. Once the home was contacted, and in order to randomly select one of the persons who live in it, a computerized list of all the persons in the home was made. The computer program randomly selected one from the persons over 18 years. In order to study the comorbidity between the members of a partnership and how the quality of the partner relationship

influences comorbidity (objective d), a random sample of the partners of the persons interviewed was also selected by computer program to obtain a final sample of 500 partners. Thus, the final sample consisted in 5,500 interviews. The interviews were performed in person in the home of the selected subject, or in another place if the subject preferred it.

Measurement instrument

The interviews were performed with the CIDI[12,13]. The CIDI is designed to be administered by lay interviewers in psychiatry and to obtain the diagnoses of the main mental disorders following the international classifications of ICD-10[36] and DSM-IV[37] by analyzing it with computer algorithms. The CIDI-2000, used in the project of World Mental Health Surveys, is a new extended version that contains more sections (table 1). These sections make it possible to evaluate more mental disorders (disorders initiating in childhood, screening of personality disorders, premenstrual dysphoric disorder), their clinical seriousness, their repercussion on quality of life and social adaptation. In addition, it includes the evaluation of a greater number of predisposing and protective factors (experiences in childhood and stressing vital events, among others) and more questions on the use of services and treatment. Another new aspect is the use, whenever possible, of standardized and validated questionnaires and scales. Thus, for example, the Hospital Anxiety and Depression Scale (HADS) was used to determine seriousness of depressive symptoms, or the Euro-Qol (EQ-5D) to measure quality of life. Table 2 shows the standardized scales included in the CIDI-2000.

Complete administration of the interview surpasses three and a half hours. Table 1 shows the mean times of administration of each one of the sections and the number of items they contain. To decrease the administration time, different optimization strategies were incorporated. In the first place, each one of the diagnostic sections of the CIDI has one or more screening questions. The persons who answered the screening questions negatively did not receive any more questions on this diagnosis. While the screening questions were at the beginning of each section in previous versions of the CIDI, the CIDI-2000 includes all the questions in a first section of differentiated screening. With this, it was aimed to avoid the learning effect of the interviewed subjects (on realizing that answering a screening question positively meant they would have to answer many more of the section). Furthermore, different systematic and random steps were included in the computerization that only permitted the administration of a part of the sections (sections related with risk, protective, sociodemographic, financial factors, etc.) to each individual, thus creating different lists of questions. With these methods, a mean duration of the interview under 90 minutes was obtained (table 2).

Translation and adaptation of the CIDI-2000

The CIDI-2000 was developed in English. The recommendations made by the WHO for the translation and adaptation of instruments were strictly followed in order to obtain a comparable version both conceptually

TABLE 2. Standardized scales included in the Composite International Diagnostic Interview (CIDI)

Disorder	*Section*	*Questionnaire*
Mood disorder	Depression	Hospital Anxiety and Depression Scale (HADS)
Anxiety disorder	Panic disorder	Panic Disorder Severity Scale (PDSS)
		Sheehan Disability Scale
	Generalized anxiety disorder	Hospital Anxiety and Depression Scale (HADS)
	Obsessive compulsive disorder	Yale-Brown Obsessive Compulsive Scale (Y-BOCS)
Other disorders	Screening of personality disorder	Cribado del International Personality Disorder Examination (IPDE) screen
	Personality	Zuckerman Personality Scales
		Levinson Personality Scale
	Non-specific anxiety and somatic symptoms	Schedule of Fatigue and Anergia (SOFA)
		Non-Specific Distress Scale (NSD)
		Dissociative Experience Scales-Short Form (DES)
	State of health	WHO Disablement Assessment Schedule II (WHODAS-II)
		Euro-Qol (EQ-5D)
		SF-12
	Family load	Questions adapted from the General Household Survey (Great Britain)
	Partner relationships	Dyadic Adjustment Scale (DAS) (three sub-escalas)
	Childhood	Family History Research Diagnostic Criteria Interview (RDC)

as well as transculturally. In this way, the following steps were carried out:

1. Direct translation from English to Spanish.
2. Review of the translation by an experts' panel, considering the previous versions of the CIDI.
3. Study of cognitive debriefing (administration of the interview to persons of the general population and patients of mental health services, asking, in turn, what the person understands that he/she is being asked and what their response would be).
4. Back translation.
5. International harmonization.

Considering that the CIDI-2000 was going to be used by other Spanish speaking countries that participate in the WHO project of World Mental Health Surveys (Mexico, Colombia, Panama, among others), an experts' panel was created and was made up of professionals from Spain and Latin America, several of them members of the editorial board of the CIDI. The function of this panel was to review the translation once it was finished by the Spanish research team and to identify words or expressions that could cause problems of transcultural equivalence between Spanish speaking countries. In these cases, different expressions were elaborated to be used in the different countries. The latter case was performed in a minimum percentage of the words[38]. Once the instrument was finished and computerized, a pilot test was performed to detect possible problems or errors in the computerization.

Field work procedures

The field work was performed by a commercial company of population surveys following the research team guidelines (Ipsos Ecoconsulting). The decision to use an external company was made to assure the minimum experienced interviewers required (more than 80). This high minimum is required to obtain a high rate of response in a relatively short period. In addition, only a commercial company could guarantee the infrastructure necessary to carry out the project that required a minimum of 60 portable computers, the performance of quality control for the telephone interview, and geographic mobility throughout Spain.

Prior to being approved to perform field work, all the interviewers received an adequacy certificate after attending a 3 day course administered by educators trained by certified personnel of the WHO. With this course, the interviewers were familiarized with the instrument and the procedures established in the field work.

Quality control of field work

To assure the data quality and reliability, a strict control was established that included, among others (table 4):

1. The monitoring of the released sample and supervision of the field routes to verify the correct random selection of the homes.
2. Checking the route sheets to verify that at least 10 contacts at the home were attempted in person before establishing a rejection.
3. A telephone contact with 10% of the interviewed subjects to study the reliability of the answers and assure that the interview was performed according to the procedures established.
4. Computer check of the answers to detect possible inconsistencies.

TABLE 3. Preliminary results: response rate and distribution by age and gender of the 3,990 first principal interviews performed

Regional community	*Response rate*	*Total*	*Men (%)*	*Women (%)*	*18-24 (%)*	*25-34 (%)*	*35-44 (%)*	*45-54 (%)*	*55-64 (%)*	*65-74 (%)*	*75+ (%)*
Total	68.6	4,325	1,677 (38.8)	2,648 (61.2)	499 (11.5)	806 (18.6)	808 (18.7)	553 (12.8)	523 (12.1)	668 (15.4)	
Andalucía	68.1	688	262 (38.1)	426 (61.9)	85 (12.4)	130 (18.9)	142 (20.6)	90 (13.1)	79 (11.5)	98 (14.2)	64 (9.3)
Aragón	59.7	114	38 (33.3)	76 (66.7)	9 (7.9)	28 (24.6)	22 (19.3)	14 (12.3)	14 (12.3)	16 (14.0)	11 (9.6)
Asturias	65.5	110	33 (30.0)	77 (70.0)	14 (12.7)	13 (11.8)	21 (19.1)	16 (14.5)	9 (8.2)	22 (20.0)	15 (13.6)
Baleares	63.5	73	38 (52.1)	35 (47.9)	11 (15.1)	19 (26.0)	13 (17.8)	8 (11.0)	6 (8.2)	10 (13.7)	6 (8.2)
C.Valenciana	77.3	411	209 (50.9)	202 (49.1)	57 (13.9)	79 (19.2)	69 (16.8)	49 (11.9)	46 (11.2)	76 (18.5)	35 (8.5)
Canarias	85.70	177	53 (29.9)	124 (70.1)	24 (13.6)	39 (22.0)	45 (25.4)	20 (11.3)	16 (9.0)	20 (11.3)	13 (7.3)
Cantabria	78.1	54	11 (20.4)	43 (79.6)	6 (11.1)	4 (7.4)	11 (20.4)	5 (9.3)	6 (11.1)	7 (13.0)	15 (27.8)
Cast.-La Mancha	69.8	177	74 (41.8)	103 (58.2)	15 (8.5)	29 (16.4)	27 (15.3)	19 (10.7)	27 (15.3)	31 (17.5)	29 (16.4)
Cast.-León	67.3	252	85 (33.7)	167 (66.3)	29 (11.5)	40 (15.9)	45 (17.9)	24 (9.5)	36 (14.3)	38 (15.1)	40 (15.9)
Cataluña	72.7	974	362 (37.2)	612 (62.8)	101 (10.4)	176 (18.1)	179 (18.4)	145 (14.9)	119 (12.2)	149 (15.3)	105 (10.8)
Extremadura	73.3	96	42 (43.8)	54 (56.3)	7 (7.3)	18 (18.8)	24 (25.0)	11 (11.5)	10 (10.4)	20 (20.8)	6 (6.3)
Galicia	62.6	243	93 (38.3)	150 (61.7)	27 (11.1)	31 (12.8)	27 (11.1)	34 (14.0)	37 (15.2)	53 (21.8)	34 (14.0)
La Rioja	76.1	54	10 (18.5)	44 (81.5)	4 (7.4)	3 (5.6)	13 (24.1)	9 (16.7)	6 (11.1)	9 (16.7)	10 (18.5)
Madrid	62.9	497	239 (48.1)	258 (51.9)	57 (11.5)	108 (21.7)	99 (19.9)	56 (11.3)	56 (11.3)	71 (14.3)	50 (10.1)
Murcia	64.2	102	33 (32.4)	69 (67.6)	11 (10.8)	24 (23.5)	20 (19.6)	6 (5.9)	13 (12.7)	13 (12.7)	15 (14.7)
Navarra	83.3	65	24 (36.9)	41 (63.1)	9 (13.8)	12 (18.5)	11 (16.9)	9 (13.8)	11 (16.9)	6 (9.2)	7 (10.8)
Basque Country	76.0	238	71 (29.8)	167 (70.2)	33 (13.9)	53 (22.3)	40 (16.8)	38 (16.0)	32 (13.4)	29 (12.2)	13 (5.5)

5. The clinical review of the questionnaires (interpretation of the open questions and notes introduced by the interviewers) and the analysis of the interviews to detect possible incomplete or inconsistent data, that were corrected by recontacting the person (table 4).

Study of clinical re-interview

Approximately 200 persons in the sample were reinterviewed by a psychiatrist using the SCID for DSM-IV and several questionnaires on clinical severity (Montgomery Asberg Depression Rating Scale[39], Panic Disorder Severity Scale (PDSS), Marks Fear Questionnaire, among others). The objective of the reinterview is to assess the concordance of the diagnoses of the CIDI with a clinical interview, study the reasons of the discrepancies when they exist and evaluate the clinical seriousness of the disorders diagnosed in the home interview. The clinical reinterview is performed in the province of Barcelona and the Regional Community of Madrid, where a sample of persons with one of the psychiatric disorders evaluated and another group of persons without diagnosis are randomly selected. The disorders evaluated are mood state disorders (major depression and dysthymia); anxiety disorders (panic disorder, agoraphobia, social phobia, specific phobia, generalized anxiety disorder, post-traumatic stress disorder); and the disorders related with substances (substance dependence and abuse disorders and alcohol dependence and abuse disorders). The interviewers are psychiatrists and they take a 3 day training course carried out by personnel qualified by the authors of the interview. An inter-rater reliability was performed between the psychiatrists and the result was highly positive.

Data processing

As in the other studies within the ESEMeD project, the data processing is performed centrally in the IMIM (Municipal Institute of Medical Research) of Barcelona. The data are sent weekly or biweekly according to the zones through internet. The processing and data analysis center performed the quality controls of the information collected regarding the values lacking, ranges, logical consistency, lists and other aspects.

TABLA 4. Strategies of data quality contr ol

Quality controls	
Inconsistencies	
Inconsistencies between ages	69
Subject identification number	12
Age of disorder onset	76
First medical visit for disorder	49
Unadmitted values	2
Total	343
Clinical reinterview	
No. of CIDI interviews	4,300
No. of inteviews in study area of clinical reinterview	1677
No. of subjects selected with diagnosis*	201
No. of subjects selected without diagnosis*	180

* The subjects selected with or without diagnosis according to the CIDI.

Pilot test

A pilot test was performed with 100 interviews following all the sampling, administration of interviews and data transmission procedures established in the protocol to assure the viability of the project and the competence of the interviewers. The field work was performed during the month of July 2001, including urban and rural zones of different regional communities to mimic the pilot test with the complete study. Seven interviewers participated in it. The results of the pilot test were positively assessed: the response rate was 57% and distribution by age and gender approached that expected. Productivity was one interview per work day and mean duration of the interview was 75 minutes.

Performance of field work

The field work of the ESEMeD study was initiated in the middle of September 2001 and finished in November 2002. The first global results will be presented at the end of the year 2003. The first field work phase took place from September 2001 to the end of January 2002. During this period, 3,990 principal interviews and 322 of partners were performed, with a response rate of the principal interviews being 68.7 % and in the partners 52 %. A few days after each one of the interviews was performed, they were sent to the IMIM for processing. Among the processing activities and data management, selection of the persons for the clinical interview is included, since it should be performed within four weeks of the performance of the CIDI interview. During the months of February and March 2002, the field work was assessed, some first analyses of the sample were performed and the strategy to finalize the field work to be able to interview at least a part of the persons who had rejected the interview in the beginning was designed. Table 3 shows the response rate and the number of persons included in each regional community, stratified by gender and age. Mean response rate is 68,7 %. The best response rates were in the Canary Islands, Navarra and Cantabria Communities with 85.70, 83.3 and 78.1 %, respectively. The number of interviews included in Andalucía and Cataluña was greater than 500, which will make it possible to perform analysis according to regional communities separately. The response rate, one of the principal elements that had been established for the quality control of the data, is high and similar to that obtained in the studies performed in other countries. In order to know the representativeness

of the sample regarding age and gender, we have compared this distribution with the Spanish population over 18 years (fig. 1). Distribution by age is very similar (less than 4% difference in all the cases), while, in our sample, there is a lower proportion of men (while there is 48.4% in the Spanish population, the percentage is 38.6% in our sample, there being a 9.8% difference). All the factors will be taken into account in the calculation and weighting of the prevalence estimators (post-stratification weights). Conversion strategy of negative interviews and finishing of the field work was performed until November 2002 (table 3 and fig. 1).

RESULTS

The ESEMeD-Spain study will make it possible to obtain the information necessary to estimate the load that the mental disorders represents for the Spanish population, both in number of persons who suffer them as well as in regards to personal, family and social involvement produced.

Analysis of the results will focus on four main lines. In the first place, the prevalence of mental disorders and their comorbidity with other psychiatric problems and with medical diseases. We will estimate life-prevalence, year-prevalence and month-prevalence. We will then study which are the predisposing and protective factors that affect the risk of suffering a mental disorder (sociodemographic factors, experiences in childhood, life events, personality characteristics, partner relationships, family load, among others). In the third place, we will focus on how these disorders affect quality of life, what is the level of disability that they produce and what is their interference in social roles (handicap). The analyses will make it possible to distinguish the effect of each one of the mental disorders as well as their interaction with the physical disorders. We will evaluate the factors that facilitate or made difficult accessibility to medical care and what is the uncovered need level. Finally, we will analyze how the health care services assist persons with psychiatric problems and the appropriateness of the treatments to clinical practice guides.

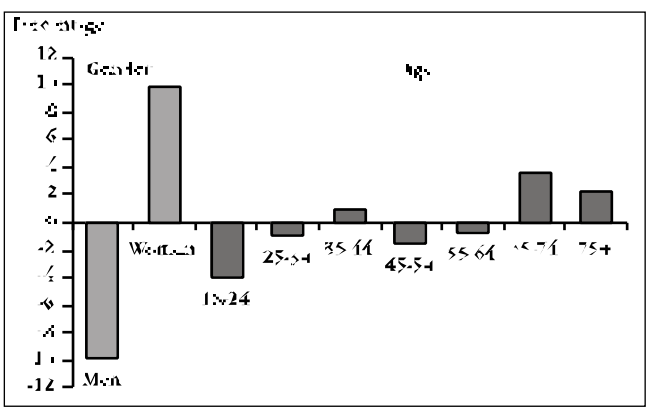

Figure 1. Comparison of the study sample with the Spanish population over 18 years of age.

CONCLUSIONS

In summary, the ESEMeD-Spain project will produce scientific information on the epidemiology of the mental disorders unprecedented in our country. The project should become an essential data source for the organization and planning of the mental health services. Furthermore, it should generate hypothesis on the determinants of the mental disorders that could be demonstrated by later and more specific studies.

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