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The relevance of recurrent brief depression in primary care

A report from the WHO Project on Psychological Problems in General Health Care conducted in 14 countries

Abstract This report from the WHO project on Psychological Problems in General Health Care examines the relevance in primary care of the concept of recurrent brief depression (RBD) proposed by Jules Angst. RBD refers to brief, severe depressive episodes that recur frequently, i.e. nearly once a month over a 1-year period, according to Angst. Using a structured interview (CIDI), RBD was assessed in patients not meeting the criteria for depressive episodes lasting at least 2 weeks, as defined in the ICD-10 (DE). A substantial proportion of primary care seekers were identified as presenting RBD without other depressive disorders, 3.7% with a formal RBD diagnosis and 2.7% with frequent but not monthly depressive episodes. These two subgroups were found to differ very little in terms of sociodemographic characteristics, severity, disability, and comorbidity with other diagnoses. However, in patients with a formal diagnosis of RBD, a higher rate of history of suicide attempts was found (14.0%), similar to that observed in patients meeting the criteria for DE. Most of the severity and disability indicators show that RBD is a severe condition, associated with substantial impairment, even if they show a higher degree of severity for DE. About one RBD patient out of three is recognized by general practitioners as presenting a psychological disorder, a majority of whom are actually treated. Our results confirm the relevance of the concept of RBD in primary care, and the need to further explore the pertinence of the restrictive recurrence criterion proposed by Angst.

Key words Recurrent brief depression · Primary care Suicide · Severity · Disability · Comorbidity · Recognition

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Introduction

Over the past few decades, epidemiological surveys have benefitted from the development of worldwide-accepted explicit diagnostic criteria and from standardized assessment procedures. Recent studies conducted in primary care have shown that one-fourth to one-third of primary care seekers suffer from at least one diagnosable psychiatric disorder, mainly depression (Schulberg 1985; Blacker and Clare 1988). However, many patients with depressive symptoms and substantial related impairment do not meet the criteria for depressive disorders (Barrett 1988). These "subthreshold" depressed patients may be severely disabled and in need of treatment and should be distinguished from patients presenting subthreshold conditions that do not require treatment. Nevertheless, the definition and identification of subthreshold disorders remains controversial. The main reasons for being a "subthreshold" patient are (1) not meeting the symptomatic severity criterion and (2) not fulfilling the usual minimum duration requirement (2 weeks) for a depressive episode.

Based on the results of the Zurich cohort study, Angst identified a group of depressed patients showing a marked impairment, and meeting the symptomatic severity criteria, but with brief episodes, generally lasting a few days (Angst et al. 1985). The severity of this disorder was linked to the recurrence of the episodes, approximately once per month over a 1-year period. Angst proposed to label this condition recurrent brief depression (RBD). When looing at symptomatology, suicide attempts, comorbidity with somatic and psychiatric disorders, age at onset, family history, longitudinal course, and level of impairment, RBD subjects were found not to differ from subjects meeting the duration criterion for major depressive episodes.

Furthermore, Montgomery (1989, 1990) identified patients in a clinical population of repeated suicide attempters who correspond closely to the RBD definition. But he also reported that the intervals between episodes may vary markedly among individuals and within the

same individuals. The proposed criterion for recurrence of at least one brief episode per month during a 1-year period proposed by Angst should be reconsidered, since this criterion is not yet supported by convincing data.

This disorder is now included in the ICD-10, although its introduction into the future DSM-IV is unlikely. Arguments against accepting this diagnosis include the risk of creating false-positives who will receive unnecessary treatment, and the need for further studies carefully assessing the absence of duration criterion for major depression in order to clearly distinguish the two disorders.

The WHO study on Psychological Problems in General Health Care, designed to explore forms and rates of well- and ill-defined psychological disorders, including RBD, in different worldwide primary care settings, shares the goal of obtaining further data on this new subtype of depressive disorder.

The aim of this paper is to examine the relevance of RBD in primary care in terms of prevalence, severity, disability, comorbidity with other psychiatric conditions, and recognition by general practitioners. Additionally, the pertinence of the restrictive recurrence criterion retained in the ICD-10 is discussed.

Study methods

The World Health Organization study on Psychological Problems in General Health Care has investigated the prevalence, management, and outcome of common psychological disorders in primary care patients. Participating centers included those in Ankara, Turkey; Athens, Greece; Bangalore, India; Berlin, Germany; Groningen, the Netherlands; Ibadan, Nigeria; Mainz, Germany; Manchester, England; Nagasaki, Japan; Paris, France; Rio de Janeiro, Brazil; Santiago, Chile; Seattle, USA; Shanghai, People's Republic of China; and Verona, Italy. The overall study methods have been fully described elsewhere (Sartorius et al. 1993).

The study employed a two-stage case sampling procedure. At each centre, consecutive adult primary care seekers aged 65 and younger were screened using the 12-item General Health Questionnaire (GHQ-12) (Goldberg et al. 1988). The exclusion criteria were: too ill, live to far away, no fixed address, not a medical consultation, language problem, and other communication problem. A stratified random sample (weighted toward higher GHQ scores) was selected for a diagnostic assessment (second-stage interview), which included (among others) the following measures: the primary care version of the Composite International Diagnostic Interview (CIDI) (World Health Organization, 1991), the 28-item GHQ (Goldberg et al. 1988), a five-level self rating of overall health, and a Brief Disability Questionnaire (BDQ) adapted from the Medical Outcome Study disability questionnaire (Stewart et al. 1988; Ware et al. 1992). A full set of all the forms used was provided to each of the centres. Instruments were translated from and back into the original English version. Research assistants were trained to use the stan-

dardized clinical and social assessments during a 1-week training session. The reliability both among raters at each center and among the centers was assessed and improved. For each patient selected for this diagnostic assessment, the treating physician completed a brief questionnaire regarding current physical and psychological illnesses. By this means, information concerning recognition of psychological disorder by GPs and treatment prescribed was collected. All patients found at the baseline assessment to have significant psychological symptoms along with a 20% random sample of "noncases" were contacted for follow-up examinations after 3 and 12 months in order to assess the outcome and the stability of their conditions.

Specific questions concerning RBD were added to the depression section of the CIDI. Interviewers inquired after the existence of "periods lasting at least a day but shorter than two weeks of feeling sad, blue, or depressed." In the event of a positive answer, patients were asked the following: "during the past year, did those periods occur at least every month, or during some months, but not every month?"

Besides dysphoric mood, duration, and recurrence criteria, impairment was assessed by asking the patients the usual CIDI probes: had he or she "ever told a doctor about these shorter spells of depression?" and did "these shorter spells of depression interfer with his/her life or activities a lot".

Due to a typographic error, interviewers at some centers could formally answer "yes" to the question concerning the frequency of the episodes when patients reported having had only one such episode during the past year. Although the raters knew that this question referred to the number of episodes per month, we decided to analyse first the results from those five centers Ankara, Groningen, Paris, Rio de Janeiro, and Seattle where the forms had no typographic error and where the distinction between "every month" and "during some month, but not every month" was clearly made. Selected key results from the ten other centers are also presented and compared to the sample from these five centers.

The questions refering to RBD immediately followed the investigation of the depressive symptomatology in the CIDI. Therefore, the rater referred to the existence of the depressive pattern of symptoms he or she had just explored with the patient, but did not recheck the presence of each individual symptom.

The specific questions for RBD were not asked of patients having experienced a depressive episode lasting at least 2 weeks. The direct implication for this paper is that prevalence rates are estimated from patients presenting *RBD without other depressive disorders*, i.e. depressive episode (DE)[1] or dysthymia. As a consequence, comorbidity between depressives subtypes will not be presented.

Some centers (Paris, Mainz) used a CIDI-format diagnostic interview aimed to explore fully the RBD criteria.

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[1] By convention, we will expressively use "DE" to refer to the ICD-10 definition of depressive episodes lasting at least 2 weeks.

These results are published separately (Weiller et al. 1994; Maier et al. 1994).

Analysis

The WHO study employed a two-stage case screening procedure. A weighting procedure was therefore needed to estimate the prevalence of disorders in the initial sample. The results concerning the estimations of prevalence and sex ratios reported in this paper incorporate sampling weights calculated to adjust for different probabilities of sampling and different response weight according to gender and GHQ-12 score.

All subsequent analyses deal with comparison of variables in different depressive subgroups of patients. These analyses were performed on the second-stage interview data set without using the weighting procedure, i.e. without trying to generalize conclusions to the initial sample, since the conclusions drawn would have been too hazardous.

One-way analysis of variance were performed to test the equality of means of continuous variables among the different exclusive subgroups of patients, and the Bonferroni test was used in order to adjust for the number of comparisons made.

Contingency tables were used in order to detect differences between the exclusive subgroups of patients for categorical variables. Chi-square statistics, or Fisher's exact test when dealing with small expected values, were performed.

This latter procedure was used to analyse the frequency of comorbid nondepressive psychiatric disorders in the different depressive subtypes. Additionally, odd ratios and their confidence intervals are presented as a measure of the association between two diagnoses.

A log-linear analysis was performed to test the interaction between three categorical variables: diagnostic status, main reason for contact, and recognition of a psychological disorder by the general practitioner. The log-linear technique involves using the logarithm of the observed frequencies in a contingency table.

Statistics were generated using the SPSS[R] system.

All diagnoses presented are made according to ICD-10 since RBD has been introduced in this classification.

Results

Sample

A total of 9697 patients were approached and deemed eligible at the five centres retained for the main RBD analysis, and 9431 GHQ-12 were completed. The stratified random sampling on the GHQ selected 3017 eligible patients for the second-stage interview. Due to refusals or technical impossibilities, only 1911 interviews were completed. Among the patients interviewed, 60.3% had a high GHQ score, 21.5% a moderate score and 18.2% a low score.

The ten other centers approached 17,272 patients and performed 3527 second-stage interviews.

Prevalence of depressive disorders

Of the 1911 patients interviewed, 51 had missing data regarding DE and/or dysthymia current diagnoses. Among the 1860 remaining patients, 467 met criteria for a current diagnosis of DE (without dysthymia), 22 for a current diagnosis of dysthymia (without DE), and 51 for the comorbid condition (i.e. DE + dysthymia). Among the patients not meeting criteria for DE or dysthymia, 149 answered positively to the questions about the existence of almost-monthly brief depressive episodes interfering with their life. Among them, 86 fulfilled the recurrence criterion of "every month during the past year", while 63 patients described frequent but not monthly occuring episodes. Hereafter, two subgroups will be distinguished: "RBD monthly" will refer to the 86 patients meeting the formal recurrence criterion and "RBD frequent," to the remaining 63 patients.

The corresponding estimated prevalence rates of these different subtypes of current depressive disorders are presented for each of the five centers in Table 1a.

The overall current prevalence rate of RBD without any other comorbid depressive disorder is found to be 6.4%. The current prevalence rates of DE (with or without dysthymia) and dysthymia (with or without DE) obtained from the same sample are 12.2% and 1.8%, respectively. These rates vary from center to center. Thus, RBD prevalence rates range from 1.9% in Groningen to 13.2% in Rio de Janeiro. Similarly, DE prevalence rates range from 6.1% in Seattle to 15.6% in Rio, and dysthymia prevalence rates from 0.3% in Seattle to 3.5% in Paris.

RBD and DE are more frequent in females than in males. The female-to-male sex ratio is 2.0 for RBD "monthly", 1.63 for RBD "frequent", and 1.71 for DE. This female overrepresentation is not found for dysthymia (sex ratio = 0.95).

Corresponding estimations of current prevalence rates of depressive disorders in the 10 centers not retained for the main RBD analyses are displayed Table 1b. Since we can not ensure that the brief depressive episodes in this subsample meet the formal recurrence criterion for RBD, they have been labelled "brief depressive episodes" (BDE).

As in the other five centers, the frequencies of depressive disorders vary considerably among the centers, and the overall estimations of the prevalence rates of the different depressive subtypes are different in the two subsamples (five vs ten centers). Nevertheless, one can observe that the prevalence rate of BDE in the subsample of ten centers is consistent with the prevalence rate found in the five-centers subsample for RBD (5.7% and 6.4%, respectively).

To further explore whether the RBD (or BDE) prevalence discrepancies among the 15 centers was linked to differences in observed prevalences of DE or dysthymia,

Table 1a Current prevalence of depressive disorders in five primary care settings

	N	RBD "monthly" w/o DE + Dysth		RBD "frequent" w/o DE + Dysth		DE w/o Dysth + RBD		Dysth w/o DE + RBD		DE + Dysth w/o RBD	
		n	wt%	n	wt%	n	wt%	n	wt%	n	wt%
Ankara	400	11	3.0	4	1.0	98	10.6	5	0.6	2	0.3
Groningen	340	9	1.4	4	0.5	108	14.2	5	1.0	7	0.8
Paris	405	18	3.1	6	0.9	101	10.5	3	0.9	25	2.6
Rio de Janeiro	393	29	6.6	33	6.6	102	14.2	8	1.0	15	1.4
Seattle	373	19	4.2	16	4.2	58	5.9	1	0.1	2	0.2
Five centers	1911	86	3.7	63	2.7	467	11.1	22	0.7	51	1.1

RBD "monthly" refers to brief depressive episodes having recurred every month in the past year
RBD "frequent" refers to brief depressive episodes having recurred frequently but not every month in the past year
DE = Current depressive episode
Dysth = Current dysthymia

N = Total number of patients
n = number of corresponding patients in the sample
wt%: Prevalence rates are estimated by applying weights to each second-stage patient individual value. This procedure allows for projection of rates to the initial sample of consecutive patients in primary care

Table 1b Current prevalence of depressive disorders in ten primary care settings

BDE = Brief depressive episodes in the past year (meeting or not meeting recurrence criterion); DE = current depressive episode; Dysth = current dysthymia
N = Total number of patients; n = number of corresponding patients in the sample
wt%: Prevalence rates are estimated by applying weights to each second-stage patient individual value. This procedure allows for projection rates to the initial sample of consecutive patients in primary care

	N	BDE w/o DE + Dysth		DE w/o Dysth + BDE		Dysth w/o DE + BDE		DE + Dysth w/o BDE	
		n	wt%	n	wt%	n	wt%	n	wt%
Athens	196	8	3.3	25	5.1	4	0.6	5	0.8
Bangalore	398	37	8.0	61	8.0	58	8.9	10	0.9
Berlin	400	49	8.7	55	5.4	1	0.1	4	0.4
Ibadan	269	14	4.2	19	3.7	5	0.9	3	0.4
Mainz	400	56	12.8	56	9.8	2	0.7	1	0.2
Manchester	428	3	0.3	134	15.0	3	0.3	18	1.7
Nagasaki	336	9	1.3	22	2.3	2	0.2	2	0.2
Santiago	274	26	7.8	96	25.3	8	1.7	12	2.5
Shanghai	576	15	1.5	50	3.7	4	0.2	3	0.3
Verona	250	30	12.6	30	4.2	4	1.9	1	0.1
Ten centers	3527	247	5.7	548	8.1	91	1.6	59	0.7

we calculated the correlation coefficient between the frequency of RBD (or BDE) and DE ($r = 0.07$, NS), RBD (or BDE) and dysthymia ($r = 0.16$, NS), and DE and dysthymia ($r = 0.33$, NS). The prevalence of a depressive disorder appears to be independent of the prevalence of other depressive disorders.

Sociodemographic characteristics of depressed patients

Sociodemographic characteristics of depressive patients are presented Table 2. The 51 patients with missing data for DE and/or dysthymia have been excluded. Because of their small size, "dysthymia" and "DE + dysthymia" groups of patients have also been excluded from the subsequent analyses. "No depressive disorder" refers to patients without any depressive disorder, i.e. no RBD, DE, or dysthymia.

Patients meeting all the criteria for RBD except for the recurrence criterion ("RBD frequent") are significantly older (mean = 43.6 years) than DE patients and than patients without any depressive disorder (mean = 37.9 and 38.5 years, respectively). The same trend is observed for patients meeting the formal RBD criteria ("RBD monthly") (mean age = 40.9 years). The other sociodemographic characteristics are very similar in both RBD groups: an overrepresentation of females is observed (about 68%), one patient out of two is married, patients completed an average of 10 years of schooling and the unemployement rate is about 18%. These figures are not significantly different in "DE" and "no current depressive disorder" groups. Nevertheless, DE patients differ from nondepressed in that they have a lower average of completed schooling and are more often unemployed.

Severity and disability linked to depressive conditions

The results of the symptomatic severity (GHQ-28), disability (BDQ and overall health self-rating form), and sui-

Table 2 Sociodemographic characteristics of patients by depressive subtypes (five centers)

RBD "monthly" refers to brief depressive episodes having recurred every month in the past year; RBD "frequent" refers to brief depressive episodes having recurred frequently but not every month in the past year; DE = current depressive episode . vs "No depressive disorders: * = P < 0.05; vs "DE": + = P < 0.05; "RBD monthly" vs "RBD frequent": all comparisons NS; "RBD monthly" vs "DE": all comparisons NS

		No current depressive disorder (n = 1171)	RBD "monthly" (n = 86)	RBD "frequent" (n = 63)	DE (n = 467)
Age	Mean	38.5	40.9	43.6*+	37.9
	SD	13.0	12.6	12.2	12.1
Females	%	62.0	67.4	68.3	74.3*
Married	%	59.3	54.7	55.6	58.7
Schooling (years)	Mean	11.1	10.0	10.4	10.1*
	SD	6.1	5.9	7.6	6.3
Unemployed	%	16.2	17.9	17.5	23.3*

Table 3 Severity and disability according to diagnostic status (five centers)

	No current disorder (n = 742)	RBD "monthly" (n = 86)	RBD "frequent" (n = 63)	DE (n = 467)
BDQ (% of moderate or severe disability)	13.6	32.6*+	30.2*+	54.8*
GHQ-28 (mean)	3.1	7.6*+	5.5*+	13.5*
Overall health (% of fair or poor)	21.2	50.0*+	50.8*+	66.2*
Suicide-attempts history (%)	3.8	14.0*	6.3+	16.3*

RBD "monthly" refers to brief depressive episodes having recurred every month in the past year; RBD "frequent" refers to brief depressive episodes having recurred frequently but not every month in the past year; DE = current depressive episode

vs "No depressive disorders: * = P < 0.05; vs "DE": + = P < 0.05; "RBD monthly" vs "RBD frequent": all comparisons NS

cide-attempt rates for the different depressive subtypes, compared to those of patients with no current disorder, are presented Table 3.

RBD patients, whether or not they meet the monthly recurrence criterion, are clearly more disabled and show a higher degree of severity than patients without psychiatric diagnosis. DE appears to be the more severe condition, both in terms of severity and disability. A history of suicide attempts is as frequent in "RBD monthly" patients as in DE patients (14.0% and 16.3%, respectively), while when the recurrence criterion for RBD is not met, the rate of suicide attempts is lower (6.3%) and not significantly different than in patients without any current disorder.

The analysis of the same indicators in the ten other centers shows a very consistent figure for BDE. The mean GHQ-28 score is 8.1, compared to 4.2 in patients without current diagnosis, and 15.1 in DE. A history of suicide attempts is observed in 11% of BDE and 21% of DE, while this rate is 2% in patients without current disorders. BDE patients show a moderate or severe disability in 30% of cases (19% with no current disorder, 59% in DE).

Comorbidity with other psychiatric disorders

Current comorbidity of depressive disorders with nondepressive psychiatric conditions is shown in Table 4a. The frequencies of the different associations are compared between the different subtypes of depressive disorder, and to those observed in patients without current depressive disorders.

The most common diagnosis associated with RBD is generalized anxiety disorder (17.9% in RBD "monthly" and 27.0% in RBD "frequent"), significantly more common than in patients without depressive disorders (6.9%), but as common in DE patients (24.5%). Other diagnoses, such as agoraphobia, panic disorder, somatization disorder, or alcohol dependence, are not found to be more common in RBD groups than in patients without depressive disorders, while all of them are significantly more common in DE patients.

The same figures for BDE are observed in the ten other centers. It is found to be weakly associated with other disorders, with the exception of generalized anxiety disorder (13.1%, compared to 29.8% in DE and 7.2% in nondepressed patients).

Table 4b reports the odd ratios for each association, calculated from the five-centers sample.

In the absence of a depressive disorder, the risk of presenting other psychiatric disorders is low, while it is high for all nondepressive disorders in DE patients. On the contrary, the only nondepressive diagnosis found to be linked to RBD is generalized anxiety disorder. The result is significant for the "RBD frequent" group.

Table 4a % of comorbid ICD-10 disorders in different depressive subtypes (five centers)

vs "No depressive disorder":
* = P < 0.05; vs "DE":
+ = P < 0.05; "RBD monthly" vs "RBD frequent": all comparisons NS

		No current depressive disorder (n = 1171)	RBD "monthly" (n = 86)	RBD "frequent" (n = 63)	DE (n = 467)
Generalized anxiety disorder	(%)	6.9	17.9*	27.0*	24.5*
Agoraphobia	(%)	2.0	1.3+	0.0+	9.3*
Panic disorder	(%)	0.8	1.2	1.6	3.7*
Somatization disorder	(%)	2.2	2.4+	0.0+	15.8*
Alcohol dependance	(%)	2.2	4.7	1.6+	8.8*

Table 4b Odd ratios between depressive subtypes and other ICD-10 disorders (five centers)

		No current depressive disorder (n = 1171)	RBD "monthly" (n = 86)	RBD "frequent" (n = 63)	DE (n = 467)
Generalized anxiety disorder	OR	0.22	1.37	2.37	2.88
	95% CI	(0.16–0.29)	(0.77–2.42)	(1.34–4.20)	(2.18–3.79)
Agoraphobia	OR	0.25	0.29	–	4.15
	95% CI	(0.15–0.42)	(0.04–2.10)		(2.58–6.67)
Panic disorder	OR	0.21	0.66	0.91	3.34
	95% CI	(0.10–0.46)	(0.09–4.90)	(0.12–6.75)	(1.68–6.67)
Somatization disorder	OR	0.15	0.35	–	6.02
	95% CI	(0.09–0.23)	(0.09–1.45)		(4.04–8.96)
Alcohol dependance	OR	0.26	1.08	0.35	3.31
	95% CI	(0.16–0.42)	(0.39–3.02)	(0.05–2.54)	(2.11–5.18)

OR = Odd ratio; 95% CI = 95% confidence interval
RBD "monthly" refers to brief depressive episodes having recurred every month in the past year; RBD "frequent" refers to brief depressive episodes having recurred frequently but not every month in the past year; DE = current depressive episode

Table 5 % of recognition by GPs and main reason for contact according to diagnostic status (five centers)

		No current disorder (n = 742)	RBD "monthly" (n = 86)	RBD "frequent" (n = 63)	DE (n = 467)
Recognition of a psychological disorder	(%)	18.1	28.2+	35.5*	51.9*
Psychological problems as main reason for contact[a]	(%)	3.9	8.5+	14.0*+	27.5*

RBD "monthly" refers to brief depressive episodes having recurred every month in the past year; RBD "frequent" refers to brief depressive episodes having recurred frequently but not every month in the past year; DE = current depressive episode

[a] The sample is midly different due to 267 missing data
vs "No depressive disorders: * = P < 0.05; vs "DE": + = P < 0.05; "RBD monthly" vs "RBD frequent": all comparisons NS; "RBD monthly" vs "RBD frequent": NS

Recognition by general practitioners

Table 5 reports the rates of recognition by general practitioners (GPs) of a psychological disorder in those patients with either RBD "monthly", RBD "frequent", or DE, compared to those without any current ICD-10 disorder.

Overall, GPs identified a psychological disorder in 33.7% of the subsample from the five centers, whether or not patients presented a current diagnosis. This rate varies considerably when the diagnostic status of the corresponding patients is taken into account: DE and RBD "frequent" patients are more often recognized by their GP (51.9% and 35.5%, respectively) than are patients without current disorder (18.1%). The figures for RBD "monthly" are in between (28.2%), not significantly different from

the no-current-disorder group and significantly lower than for the DE group.

A very similar recognition rate is found for DE patients in the ten other centers (52.9%), while BDE patients are still recognized by their GPs as suffering from a psychological disorder in 40.5% of cases, significantly more often than are patients without current diagnosis (19.9%).

Recognition by general practitioners and main reason for contact

Main reasons for contact vary within diagnostic subgroups and, as is shown in Table 5, psychological problems are more often reported by DE patients.

The GP's ability to identify a psychological problem in a patient is strongly influenced by the reason why the patient sought care. A log-linear analysis performed on the five-centers sample shows a strong association of those three factors, i.e. main reason for contact, diagnostic status, and recognition ($P = 0.0143$). When the main reason for contact is a psychological problem, about 80% of patients are recognized by their GPs, and this recognition rate does not vary significantly from one diagnostic subgroup to another (chi-square $= 5.9$, $df = 3$, NS).

In patients seeking care for other reasons, i.e. somatic problems, pain, or fatigue, the recognition rate is significantly lower: 26.7% (chi-square $= 149.6$, $df = 1$, $P < 0.001$). This rate increases according to diagnostic status: 17.4% in "no-current-disorder" group, 26.6% in "RBD monthly", 35.7% in "RBD frequent", and 42.4% in "DE" (chi-square $= 61.6$, $df = 3$, $P < .001$).

Treatment prescribed

When GPs identify a psychological problem in RBD patients, they prescribe a psychotropic drug to 75.0% of them when the recurrence criterion is met, and to 68.2% of patients having frequent but not monthly brief depressive episodes. These rates are significantly higher than in patients recognized by their GPs but not by the structured diagnostic interview (45.3%). GPs do not prescribe significantly more psychotropic drugs to DE patients recognized by them as having a psychological problem (55.7%).

Discussion

The main result of these analyses performed on the data from five centers involved in the WHO study is that a significant proportion (6.4%) of consecutive primary care patients were identified as having had RBD during the past year. Although they did not meet the criteria for depressive episodes lasting at least 2 weeks, as defined in the ICD-10, these depressive episodes were associated with significant social impairment. This prevalence rate is consistent with that obtained from the ten other centers where recurrence criterion was not systematically verified (5.7%). Additionally, these figures may be underestimated: the rate found for Paris, using the brief WHO assessment, is 4.0%, while in another paper, Weiller et al. (1994) reported a corresponding prevalence rate of 5.2% in the same patient sample. This discrepency is explained by a better identification of patients' impairment when using the full CIDI-format interview.

Two subgroups of RBD patients have been distinguished in this paper, according to their answer to the question concerning monthly or frequent recurrence of episodes during the past year.

These two subgroups of RBD patients were found to differ very little in terms of socio-demographic charateristics, severity, and disability. Nonetheless, when the monthly recurrence criterion is not met, suicide attempts are less frequent (6.3%), while when patients meet the strict monthly RBD criterion, a history of suicide attempts is as frequent as in DE (14.0% and 16.3%, respectively). Other indicators of severity and disability, such as GHQ-28, overall health self-rating, or BDQ, show a higher degree of severity for DE patients compared to RBD patients. However, it should be taken into account that the more severe and disabled RBD patients are those with a comorbid diagnosis of DE (see Weiller et al. 1994).

Our findings concerning comorbidity of RBD with other psychiatric disorders are quite surprising. Common findings in this study and others are the high risk of presenting nondepressive disorders in DE patients, and the association between RBD and generalized anxiety disorder. On the other hand, RBD is found in this study to be very little associated with other conditions, while in his study Angst reported a high comorbidity of RBD with, panic disorder, among others. The more extensive exploration of RBD in Paris (Weiller et al. 1994) led to an identical finding, with RBD being often associated with other conditions. Nevertheless, it should be kept in mind that comorbidity with other disorders is found particularly when RBD is associated with DE (Maier et al. 1994, Weiller et al. 1994).

These results confirm that RBD should not be considered an artefactual diagnosis, but a separate and original entity.

General practitioners identify nearly one-third of RBD patients as psychological cases, and actually treat a majority (75%) of the RBD patients they recognize. This high rate is not surprising, since some disability is mandatory to meet RBD criteria.

Conclusion

This study was conducted in 14 countries with a large sample ($n = 26969$) of consecutive primary care seekers. The results presented refer to patients with a *RBD diagnosis without DE comorbid condition*, the population for whom the risk of creating "false positives" by identifying patients not in need of treatment as RBD is highest. To better explore this problem and the accuracy of this diagnosis, we analyzed the results by splitting our RBD sample into two groups, according to the recurrence rate of the episodes, i.e. monthly or almost monthly.

In fact, a majority of patients diagnosed as having RBD show a clinically significant degree of impairment and substantial psychosocial disability. Moreover, the risk of suicidal attempts in these patients is high. Therefore, RBD should be considered a severe condition, even when not associated with other depressive disorders. A large number of RBD patients would benefit from a specific treatment. Since such treatment is not available today, further studies are needed.

With the exception of a history of suicide attempts, both RBD groups were found to differ very little. The criterion of "*almost* one episode per month over a 1-year pe-

riod" seems to be appropriate. Further studies should try to determine more precisely whether the recurrence criterion needs to be refined, or if other criteria would better identify those patients in need of treatment.

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