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Recurrent brief depression in general practice

Clinical features, comorbidity with other disorders, and need for treatment

Abstract This study tested the clinical validity of the new diagnostic entity "recurrent brief depression" (RBD) in 300 general practice patients who participated in the WHO study on "Psychological Problems in Primary Care." Patients with current RBD reported of episodes major depression more often than did a comparison group of nondepressed general practice patients: however, the majority of RBD patients had not received a diagnostic of any well-established affective disorder during the last 12 months. RBD patients (without MDE) did not suffer more frequently from dysthymia, from nonaffective psychiatric disorders, or from somatic disorders. However, RBD was associated with a higher percentage of previous suicide attempts and of ideation of suicide and death. RBD was accompanied by substantial psychosocial impairment; psychosocial impairment in RBD patients could not be explained by excess comorbidity. Thus, the clinical validity of RBD was demonstrated although doubts about the appropriateness of the definition remained. This new diagnostic category needs more attention as only a small minority of patients with RBD received specific antidepressant treatment.

Key words Recurrent brief depression · Major depression · Subthreshold depression · Suicide Comorbidity · Antidepressant treatment · General practice

Introduction

Community and primary care surveys have identified substantial proportions of subjects who are suffering from depressive symptoms and who are in need for antidepressant treatment, but do not fulfill the criteria for the well-de-

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fined categories of depressive disorders (such as major depression and dysthymia) (Angst 1988). Operational criteria for depressive disorders in diagnostic manuals are designed in this restrictive manner in order to avoid the allocation of diagnoses to subjects who are not suffering from depression or who are not in need of somatic or psychological treatment. The Zurich Study explored the pattern of complaints among subjects reporting to suffer from and be treated for depression, but who are not allocated to a DSM-III diagnosis of affective disorders: Cross sectionally, these subjects reported a similar number of symptoms as is usually associated with major depression, but failed to fulfill the criterion of a continuing duration of the disorder of at least 2 weeks. Substantial impairment and treatment-seeking behavior emerged mainly from the highly recurrent nature of these brief episodes of depression. A similar proportion of treated cases of RBD and of treated cases of MDE was observed in the general population (altogether more than 70% of all cases treated for depression) (Angst et al. 1993). In both groups, a substantial proportion of cases received treatment by the general practitioners.

The validity of the RBD diagnosis was furthermore supported by clinical studies: Montgomery et al. (1989, 1990) reported an increased risk of suicide attempts among RBD patients in a psychiatric outpatient clinic; Staner et al. (1992) found RBD to be located between MDE patients and controls with regard to biological indicators of depression. However, despite this body of evidence, the concept of RBD has not been generally accepted (e.g. the task force on DSM-IV, APA 1993). One reason for the reluctance to include RBD as a regular diagnostic category in DSM-IV might be that patients with RBD are usually not treated by psychiatrists, but by general practitioners. Therefore, primary care settings provide the ideal setting for exploring the validity of this new diagnostic category. The WHO study on "Psychological Problems in Primary Care" is a most ambitious study in this field (Sartorius et al. 1993). In our participating center, this study was extended by an investigation of the validity of RBD.

The goal of this paper is to evaluate the clinical validity of recurrent brief depression in terms of clinical features, psychosocial impairment, and comorbidity with other psychiatric and somatic syndromes. Patients with RBD are compared to patients with major depression and to patients without depression with regard to these features. As is demonstrated in another paper from this study (Maier et al. 1994), a considerable proportion of primary care patients report highly recurrent brief episodes of depression which fail to fulfil the stringent definition proposed by Angst et al. (1990). The clinical features of these fringe cases were also explored in order to clarify the distinctness of the boundaries of the diagnostic definition of RBD.

Methods

Sampling of patients and assessment tools

Sampling of patients is extensively described in an adjoining report (Maier et al. 1994). Diagnostic classifications of psychiatric disorders in the sample under study were based on the CIDI interview and on a supplementary interview focusing on the phenomenology and course of brief episodes of mood disturbances and other complaints usually associated with affective disorders: These tools and the mode of their application were also extensively described in the adjoining report. The diagnoses in this report refer to DSM-III-R. RBD is defined as proposed by Angst et al. (1990). Subthreshold RBD is defined by multiple occurrence of brief episodes of depression (i.e. duration per episode lasting no longer than 2 weeks), cross sectionally fulfilling DSM-III-R criteria for DSM-III-R occurring at least once monthly during a 6-month interval, but not fulfilling RBD criteria. All prevalence rates for diagnoses in this report refer to the last 12 months (if not explicitly stated otherwise).

Somatic syndromes were identified by the treating physician in a free manner on a physician's encounter form. These diagnoses were transfered to ICD-10 codes. The presence of multiple syndromes could also be rated. This report uses the most frequently occurring somatic syndromes for the analysis of comorbidity. A list of treatment strategies and prescribed drugs was also completed by the general practitioner. The patient reported his or her reasons for contacting the physician in an unstructured manner; several reasons could be mentioned, but the patient was also asked for a single main reason. The answers of the patients were transferred by the study investigator to a preestablished list of 28 reasons

Social disability was examined by a semistructured interview (Social Disability Schedule, Wiersma et al. 1990). This schedule advises the interviewer to score four subscales measuring level of performance in four different areas of functioning (among them, adjustment to daily routine, energy input and performance, and contact with other people at work): Four scores per dimension were defined between 0 (no disability) and 3 (severe disability). In addition, a global disability score indicates the maximum level of social impairment in any of the areas of functioning.

Functioning in social roles was also used for comparing groups of patients. This dimension was extracted from the Brief Disability Questionnaire (BDQ), a self rating questionnaire developed by the WHO. A substantial proportion of patients were without work; therefore, we prefered this measure of deterioration of social relations to other measures, as it does not differentiate between private and professional life. This item is defined by four scores between 0 (no deterioration) and 3 (severe deterioration). The patient is also requested on the BDQ to estimate the number of days during the last month he or she was unable to fully carry out usual daily activities. This estimate was selected as a criterion as well.

Analytic Methods

Prevalences of disorders and frequency of scores in the various comparison groups were calculated as weighted means. Each group member was weighted by the sex-specific weight of the stratum the patient belonged to.

Two statistical strategies were applied for the analysis of comorbidity:

1. Odds ratios, currently the most widely accepted indicator excess comorbidity. Mean odds ratios are not dependent on sample size, as are other measures of association. Confidence intervals can be estimated as proposed by Agresti (1990). An odds ratio of 1,0 indicates concurrence of disorders just by chance; higher values indicate less concurrence than would be expected by chance. Odds ratios refer to the total sample; they reflect concurrence between two diagnostic entities and cannot be controlled for additional occurrence of a third diagnostic entity.

2. Mediation of excess concurrence between two disorders by a third diagnostic group. In particular, excess concurrence between RBD and a nonaffective psychiatric disorder may be due to the excess concurrence of MDE with both of them. In order to rule out that an association between RBD and another disorder detected by odds ratios is mediated by MDE, we compared patients with RBD but without MDE or dysthymia to patients without any current syndrome of depression (i.e. without MDE, dysthymia, RBD or subthreshold RBD) by a chi-square statistic.

Other statistical tests applied were t-tests for testing for equality between means of continuous variables, and chi-square tests for testing for equality of the distribution of categorial variables between two comparison groups.

Studies exploring the validity of a diagnostic group should determine a priori the sample size of the comparison groups under study in order to control for statistical errors. The design of this study did not allow for this procedure; the size of the sample of all general practice patients was fixed rather than the sample size of subgroups. The number of patients receiving RBD diagnosis were limited ($n = 19$ and 10, see Table 1). Thus, all comparisons between RBD patients and nondepressed patients are overconservative. However, this limitation does not introduce a bias in favor of the validity of RBD.

Results

Sample under study

Among the stratified sample of 300 patients (Table 1) were identified 55 cases with an episode of major depression during the last 12 months, 2 cases with current dysthymia, 29 cases with current recurrent brief depression, and 67 cases with subthreshold recurrent brief depression during the last 12 months. Recurrent brief depression and major depression coincide in the same subjects during the last 12 months significantly more frequently than would be expected by chance (odds ratio 2.66 with a 95%-confidence interval between 1.7 and 6.0; $P = 0.01$). The associated between subthreshold brief depression and MDE is less strong (odds ratio 1.2 with a 95%-confidence interval between 0.6 and 2.4; $P = 0.05$) than between RBD and MDE. Current dysthymia was not diagnosed in any of the patients with either current MDE or current RBD or current subthreshold RBD. Therefore, and because of low prevalence rates of dysthymia, cases with dysthymia were discarded from all subsequent analyses.

This study compares subgroups of patients with particular depressive syndromes during the last 12 months to

Table 1 Patients in general practice by presence and absence of RBD, subthreshold RBD and MDE: sociodemographic characteristics, features of illness and treatment

	Depressive subtype					
	RBD + MDE	Sub-threshold RBD + MDE	RBD w/o MDE	Sub-threshold RBD w/o MDE	MDE w/o RBD or sub-threshold RBD	No MDE, no RBD, no dys-thymia and no subthreshold RBD
Prevalences						
Number of identified patients	10	14	19	53	31	169
Reweighted prevalence rates	2.1%	4.1%	5.4%	18.0%	7.6%	62.8%
Sociodemographic characteristics						
Sex ratio (m:f)	2:8	5:9	1:18	16:37	9:22	69:100
Married	30.0%	35.7%	47.4%	39.6%	54.8%	52.0%
Mean age (years)	30.3	38.5	35.2	32.9	36.9	36.9
Psychological impairment						
Any psychological problem as reason for attendance	30.0%	28.6%	15.8%	9.4%	19.4%	4.7%
Psychological problem as main reason of contact	30.0%	14.3%	10.5%	3.8%	12.9%	1.8%
Weeks since main problem began (mean)	53.4	112.6	95.4	72.6	102.9	113.5
Mean GHQ score (28 items; mean, SD)	10.0 (5.2)	10.7 (7.0)	6.1 (3.8)	8.0 (6.0)	13.7 (6.4)	4.9 (3.3)
Mean GHQ score (12 items; mean, SD)	6.4 (2.9)	6.6 (3.6)	5.7 (3.5)	5.0 (3.6)	7.6 (3.7)	4.3 (5.4)
Social disability						
Global social disability (SDS)	65.6%	91.2%	84.8%	57.3%	73.9%	48.4%
Severe global social disability (SDS)	39.2%	4.4%	24.3%	7.8%	29.4%	5.1%
Disability in daily routine (SDS)	65.1%	86.5%	69.8%	38.8%	64.9%	37.2%
Severe disability in daily routine (SDS)	23.9%	10.0%	5.9%	6.8%	16.2%	3.7%
Deterioration of social relations (BDQ)	23.9%	57.7%	55.3%	44.7%	52.9%	27.5%
Severe or moderate deterioration of social relations (BDQ)	15.3%	4.4%	18.4%	1.0%	13.2%	1.9%
Number of days during last month unable to perform daily routine / BDQ (mean, SD)	3.9 (5.2)	7.0 (7.8)	3.2 (6.2)	6.5 (9.1)	9.4 (9.7)	4.0 (6.6)
Treatment						
Any current drug treatment	90.0%	78.6%	73.3%	82.1%	77.4%	78.4%
Any current psychotropic treatment	17.2%	8.8%	10.2%	6.8%	32.5%	9.5%
Any current antidepressant treatment	8.6%	4.4%	3.3%	2.0%	16.2%	2.4%

169 patients not reporting any depressive syndrome (i.e. no MDE, no dysthymia, no subthreshold RBD) during the last 12 months. Previous syndromes of depression remitted at least 12 months before the index assessment were reported by 54 of the 169 patients in this comparison group (reweighted 24.6%) of these 54, 31 patients reported a history of major depression, 11 reported a history of dysthymia, and 29 reported a history of recurrent brief depression. In order to prevent false-positive conclusions on the validity of RBD, an overconservative approach was given preference. Therefore, patients with a history of affected disorders but without depressive syndromes during the preceding 12 months remained in the comparison group.

Depressive disorders (all five subtypes with a diagnosis of depression) occurred more frequently among fe- males than males, and particularly so in patients with RBD without major depression compared to patients without depression (chi-square 9.5; $P = 0.001$). Age was similar across all six comparison groups, with patients with major depression revealing the maximum mean age.

Psychosocial complaints and treatment

All groups of patients with depression reported increasingly severe health-related complaints as measured by the GHQ compared to patients without depression, with patients with MDE reporting maximum scores ($t = 8.1$; $P = 0.00$ for MDE; $t = 1.0$; $P = 0.10$ for RBD).

Patients with major depression and patients with RBD reported psychological problems as a reason for atten-

Table 2 Current comorbid psychiatric disorders (reweighted, %) by depressive subtype of patients in general practice

Comorbid psychiatric disorder (DSM-III-R)	Number of identified cases (un-weighted)	Depressive subtype					
		RBD + MDE	Sub-threshold RBD + MDE	RBD w/o MDE	Sub-threshold RBD w/o MDE	MDE w/o RBD or sub-threshold RBD	No MDE, no RBD, no dys-thymia and no subthreshold RBD
Panic disorder or agoraphobia	20	17.2%	4.4%	3.3%	2.0%	16.8%	1.7%
Generalized anxiety disorder	41	43.5%	25.8%	10.2%	6.1%	40.6%	3.3%
Alcohol abuse or dependence	33	23.9%	24.3%	3.3%	10.0%	16.2%	10.0%
Somatization disorder	13	50.2%	8.9%	3.3%	0.0%	2.4%	1.4%
Hypochondriasis	4	0.0%	0.0%	0.0%	1.0%	2.4%	1.8%
Suicide attempts (lifetime)	40	23.9%	8.9%	16.1%	7.6%	12.0%	6.6%

dance significantly more frequently than patients without depressive disorders (chi square 8.6; $P = 0.02$ respectively chi square 5.1; $P = 0.01$).

The relative frequency of patients with any psychosocial impairment is very similar between the groups diagnosed with RBD without MDE and RBD with MDE. The comparisons to the nondepressed patients reveal significant results (chi-square 6.9 and 10.5; $P = 0.00$). Severe global psychosocial impairment, as measured by the Social Disability Schedule, is significantly elevated among patients with MDE (chi square 22.8; $P = 0.00$) compared to patients with no depression, particularly in patients with RBD and MDE. Although less strongly, RBD without MDE also shows a significant excess of severe social impairment (chi-square 10.5; $P = 0.01$). The same configuration emerges for the more specific components of global psychosocial impairment: any disability in daily routine is significantly more common among patients with RBD without major depression and among patients with MDE without RBD than among patients without depressive syndromes (chi-square 7.9 with $P = 0.01$ for MDE, and 6.8 with $P = 0.01$ for RBD). Severe disability in daily routine is significantly more common among patients with MDE without RBD than among nondepressed patients (chi-square 8.1 with $P = 0.004$). Although there was a trend in this direction, no significant difference with regard to severe disability in daily routine between patients with RBD without MDE and the nondepressed comparison group was observed (chi square 0.2 with $P < 0.10$). A similar configuration is observed for deterioration of social relationships, as measured by the self-rating scale BDQ: any deterioration is reported more frequently by patients with MDE with RBD and by patients with RBD without MDE than by nondepressed controls (chi-square 7.1 for MDE and 7.6 for RBD with $P = 0.01$ each). Moderate or severe deterioration of social relations (self-rating by BDQ) was more common among patients with MDE but without RBD and also among patients with RBD without MDE compared to patients without depression (chi-square 11.0 and 9.8 with $P = 0.001$).

Compared to patients without any depression, patients with MDE reported a significantly higher number of disability days during the last month (Table 1; $t = 3.86$; $df =$ 198; $P = 0.001$). The number of disability days was also moderately enhanced among patients with subthreshold RBD without MDE ($t = 2.18$; $df = 220$; $P = 0.02$), whereas patients with RBD without MDE were not significantly different from patients without depression in this respect.

Only a minority of patients with MDE (32%) received psychotropic medication, with 16% receiving antidepressant treatment (Table 1). Both figures differ significantly from the corresponding treatment rates in nondepressed patients (chi-square 12.0; $P < 0.001$; chi-square 11.5; $P < 0.001$). However, neither patients with RBD nor patients with subthreshold RBD were substantially more often treated with psychotropic or antidepressant drugs (all four chi-squares lower than 0.5 with $P > 0.10$).

Comorbidity with psychiatric and somatic syndromes

Table 2 reports relative frequencies of psychiatric syndromes among subgroups of patients defined by occurrence of depressive syndromes during the last 12 months. Table 3 displays two modes of analyzing these figures. The prevalences of diagnoses are compared between the group of patients without any depressive syndrome (last column) and the groups of patients with MDE, RBD, and subthreshold RBD. The first strategy refers to the combined subtypes (i.e. ignores comorbidity between subtypes of depression) and uses the odds ratio statistics; the second strategy refers to the pure subtypes and uses chi-square tests.

A strong association between MDE and anxiety disorders during the last 12 months (Tables 2 and 3) is emerging from the association and from the odds ratio approach. An association between RBD and any generalized anxiety disorder results from the odds ratio analysis ($P = 0.05$), but does not hold up in the chi-square analysis comparing RBD without MDE with nondepressed patients ($P > 0.05$). The reason for these different conclusions is that the excess of generalized anxiety disorder among RBD patients is due mainly to an excess among the patients with comorbid RBD and MDE. Both MDE and RBD reveal excess comorbidity with somatization disorder by odds ratio analysis. It is apparent from Table 2 that these

Table 3 Odds ratios between depressive subtypes and other psychiatric disorders in patients in general practice. Confidence intervals (95%) in parentheses

Comorbid psychiatric disorder (DSM-III-R)	Odds ratios between depressive subtypes (not exclusive) and somatic disorders			Comparison of prevalences of somatic disorders between exclusive subtypes chi-square, $df=1$		
	MDE	RBD	RBD or subthreshold RBD	MDE only vs no affective disorder	RBD only vs no affective disorder	Subthreshold RBD only vs no affective disorder
Panic disorder or agoraphobia	5.13 (2.06–12.78)	1.91 (0.57–6.43)	0.93 (0.36–2.43)	14.3**(*)	0.3	0.9
Generalized anxiety disorder	7.73 (3.81–15.68)	2.79 (1.17–6.68)	2.02 (1.04–3.91)	45.4***	1.0	0.0
Alcohol abuse or dependence	2.17 (0.98–4.79)	1.04 (0.32–3.36)	0.93 (0.43–2.00)	1.0	0.4	0.0
Somatization disorder	7.76 (2.54–23.71)	9.68 (3.12–30.03)	3.45 (1.15–10.38)	0.8	0.4	0.0
Psychogenic pain syndrome	2.47 (1.37–4.48)	1.60 (0.74–3.45)	1.56 (0.94–2.59)	0.3	1.8	0.6
Hypochondriasis	1.89 (0.27–13.10)	1.00 (0.05–19.04)	0.90 (0.13–6.16)	0.4	0.3	0.0

* $0.01 < P < 0.5$; ** $0.001 < P < 0.01$; *** $0.001 < P < 0.01$

Table 4 Current comorbid somatic disorders (reweighted, %) by depressive subtype of patients in general practice

Comorbid somatic disorder	Number of identified cases (un-weighted)	Depressive subtype					
		RBD + MDE	Sub-threshold RBD + MDE	RBD w/o MDE	Sub-threshold RBD w/o MDE	MDE w/o RBD or sub-threshold RBD	No MDE, no RBD, no dys-thymia and no subthreshold RBD
Any chronic somatic disease	198	60.0%	78.6%	57.9%	67.9%	80.6%	63.7%
Heart disease	22	0.0%	8.9%	0.0%	5.5%	13.9%	5.6%
Hypertension	41	32.5%	8.9%	0.0%	5.1%	9.0%	14.4%
Asthma bronchiale	10	0.0%	0.0%	0.0%	1.0%	4.81%	5.1%
Diabetes mellitus	14	0.0%	4.4%	5.9%	2.0%	2.4%	6.5%

associations are due mainly to the elevated prevalence of somatization disorder in the group of patients with MDE and RBD. Consequently, the association between somatization disorder and MDE and RBD, respectively, does not hold up if the pure depressive subtypes are compared to the nondepressive condition (Table 3).

MDE was weakly associated with the coexistence of chronic somatic syndromes as assessed by the treating physician and without specification of the basic somatic disease ($P = 0.04$). Table 4 also reports specific ICD-10 diagnoses of somatic disorders. Although there was a trend for an association between current heart disease and MDE by odds ratio analysis – but not by chi-square test – (Table 5), there was no convincing evidence for a consistent and specific association between MDE and chronic somatic syndromes. In contrast to MDE, current chronic somatic syndromes and RBD were not more strongly associated than would be expected by chance. Lack of association was also observed between RBD and all particular somatic syndromes in Tables 4 and 5, with the only exception being hypertension; a weak association with hy-

pertension was found with the pure RBD subtype, but not so when all patients with RBD were considered.

Frequency of episodes and depressive symptoms

Table 6 reports the number of episodes with depressed mood or loss of interest. These figures ignore the length of the episodes. As expected, Table 6 reports the highest number of episodes in the group of patients with both MDE and RBD during the last 12 months. RBD without MDE was characterized by a similar degree of recurrence. Simultaneously, brief episodes were also observed among patients in the comparison group, i.e. patients not allocated to MDE or to RBD or to subthreshold RBD. The mean duration of episodes is 3.4 (standard variation 3.1) in patients with RBD (without MDE) and also 3.4 (standard deviation 2.6) in patients with subthreshold RBD (without MDE).

Table 6 also reports the presence of symptoms considered as diagnostic criteria for MDE by the diagnostic

Table 5 Associations between somatic disorders and depressive subtypes (reweighted) in patients of general practitioneers

Comorbid somatic disorder	Odds ratios between depressive subtypes (not exclusive) and somatic disorders			Comparison of prevalences of somatic disorders between exclusive subtypes chi-square, $df = 1$		
	MDE	RBD	RBD or subthreshold RBD	MDE only vs no affective disorder	RBD only vs no affective disorder	Subthreshold RBD only vs no affective disorder
Any chronic somatic disease	1.12 (0.56–2.25)	1.16 (0.47–2.88)	0.66 (0.38–1.14)	3.4*	0.3	0.3
Heart disease	2.28 (0.90–5.75)	0.19 (0.01–3.15)	0.49 (0.17–1.40)	2.0	1.2	0.0
Hypertension	1.12 (0.50–2.54)	0.79 (0.25–2.55)	0.66 (0.31–1.39)	0.5	3.2*	2.9
Asthma bronchiale	1.29 (0.31–5.47)	0.42 (0.02–7.33)	0.32 (0.06–1.82)	0.2	1.1	1.1
Diabetes mellitus	0.87 (0.22–3.47)	1.00 (0.18–5.64)	0.89 (0.29–2.77)	0.5	0.0	1.6

* $0.01 < P < 0.5$; ** $0.001 < P < 0.01$; *** $0.001 < P < 0.01$

Table 6 Presence (%, reweighted) of depression associated symptoms during last 12 months (with duration of at least one day) in general practice patients by depressive subtype

	Depressive subtype					
	RBD + MDE	Sub-threshold RBD + MDE	RBD w/o MDE	Sub-threshold RBD w/o MDE	MDE w/o RBD or sub-threshold RBD	No MDE, no RBD, no dys-thymia and no subthreshold RBD
Number of episodes (mean, SD) with depressed mood or loss of interest	16.9 (5.1)	9.6 (2.9)	15.0 (9.0)	8.4 (4.0)	3.9 (10.7)	1.5 (4.7)
Symptoms associated with depression						
1) Depressive/dysphoric mood	100%	100%	100%	99.0%	97.5%	66.8%
2) Loss of interest/anhedonia	82.8%	78.9%	66.4%	49.2%	57.5%	16.0%
3) Appetite disturbances/weight changes	91.4%	100%	90.0%	88.9%	64.1%	51.4%
4) Sleep disturbances	100%	100%	96.7%	96.2%	92.7%	69.9%
5) Agitation/retardation	93.8%	95.6%	78.3%	75.5%	78.9%	33.8%
6) Loss of energy	58.9%	39.1%	32.1%	42.9%	46.3%	17.7%
7) Feelings of guilt/worthlessness	100%	63.4%	44.5%	49.2%	60.4%	34.5%
8) Reduced concentration	91.4%	92.1%	100%	94.9%	88.5%	49.7%
9) Ideation of death or suicide	91.4%	95.6%	96.7%	74.0%	73.1%	68.2%

manual DSM-III-R. Duration of symptoms and association with depressed mood or loss of interest were not taken into account. Thus, a relatively high proportion of patients in all groups suffered from these symptoms. Nearly all symptoms were significantly ($P = 0.05$) more frequent in the groups of patients with MDE only, RBD only, and subthreshold RBD, as compared with patients without depression. This configuration was not true, however, for item 3 (appetite disturbances), item 7 (feeling of guilt), and item 9 (ideation of suicide and death); only the MDE patients reported significantly more feelings of guilt compared to patients without depression (chi-square 7.9; $P = 0.005$), not patients with RBD or subthreshold RBD. Only patients with RBD or subthreshold RBD reported significantly more frequently appetite disturbances (chi-

square 10.0; $P = 0.001$ respectively 23.4; $P = 0.00$), not patients with MDE (chi-square 1.8; $P = 0.13$). Ideation of suicide and death was more common among patients with RBD (chi square 5.8; $P = 0.01$), but not among patients with MDE (chi-square 0.4; $P = 0.3$). Similarly, a lifetime history of suicide attempts (Table 2) was most common among patients with current RBD (in particular, with RBD and MDE) compared to 6.6% among patients without depression; patients with MDE only were located in between. In general, RBD patients are characterized by fewer feelings of guilt and by more suicide ideation and attempts, as well as by more appetite disturbances, as compared with patients with MDE.

Subthreshold RBD

Subthreshold RBD behaved similarly to the more stringently defined RBD in all criteria under study, with an overall reduced degree of impairment and dysfunction. There was one exception to this rule: psychosocial impairment as measured by mean disability days was more severe among patients with subthreshold RBD only than among patients with RBD only. However, this exception may be due to random fluctuation. It is noteworthy that patients with subthreshold RBD are more psychosocially impaired than are patients without depressive disorders. Subthreshold RBD as well as RBD are not associated with current psychiatric and somatic disorders more frequently than would be expected by chance (Tables 3 and 5).

Discussion

The clinical validity of RBD:
social impairment and comorbidity

Frequency, duration of episodes

This study provided evidence for the clinical validity of recurrent brief depression, although the appropriateness of the very stringent definition proposed by Angst et al. (1990) remains doubtful. This study replicated previous reports of a mean duration of brief episodes being about 3 days (Angst et al. 1990, Montgomery et al. 1992) and a recurrence rate of between 15 and 18 episodes per year (Montgomery et al. 1992). This similarity across studies is surprising, given the differences between the three settings.

Social impairment

Patients with current recurrent brief depression were more impaired by psychosocial functioning than patients without depressive disorders (as measured by less adjustment to daily routine). In this respect, the RBD patients were intermediate between the patients fulfilling the diagnostic criteria for MDE and the comparison group without current depressive syndromes.

Significant psychosocial impairment in patients with RBD was also reported by Angst et al. (1990) in a general population sample. However, in contrast to this study, Angst et al. (1990) found a similar degree of impairment in RBD and MDE. Sample differences may account for this quantitative discrepancy: self-selection is a characteristic feature of general practitioner studies. On the one hand, patients with significant psychosocial impairment may preferentially consult the general practitioner if they suffer from longstanding depression as MDE, but not when suffering from brief episodes, which might not be experienced by the patient as a disease even if it occurs as a recurrent condition. On the other hand, patients who are severely impaired by a psychiatric condition which is not tapped by standard diagnostic approaches may be preferentially transferred to psychiatrists. The lower percentage of patients with RBD reporting a psychological problem as a reason of contact compared to patients with MDE is compatible with this explanation. An alternative explanation is suggested by a lower degree of comorbidity between RBD and nonaffective disorders in the present study, compared to the study by Angst et al. (1990).

Comorbidity

As was observed in general population surveys (Angst et al. 1993), RBD during the last 12 months is strongly associated with major depression during the preceding year (odds ratio) and is not associated with concurrent dysthymia in primary care settings. The coexistence of diagnoses of RBD and MDE underscores the need to rule out concurrence of MDE as a reason for differences between RBD and nondepressed subjects. However, the psychosocial impairment reported by patients with RBD cannot be due exclusively to the concurrence of MDE. Patients with current RBD and no major depressive episode during the preceding 12 months were also significantly more subject to social impairment.

Excess comorbidity between RBD and other psychiatric or somatic disorders might also explain increased social disabiity. However, this study found a lack of significantly elevated comorbidity between RBD and psychiatric as well as somatic syndromes, whereas a strong association between MDE and anxiety disorders was found. This observation clearly argues that RBD does not just reflect the presence of other psychiatric or somatic disorders; in particular, the psychosocial impairment associated with RBD cannot be due to the concurrence of other well-established disorders with substantial psychosocial impairment.

Absence of comorbidity as detected in this study is surprising given the report from a general population sample by Angst et al. (1990), in which excess of panic disorder and substance abuse among subjects with the pure RBD subtype was found. Again, the two samples are not comparable, but comorbidity should predominate in treatment settings compared to the general population. One explanation for this discrepancy might be underreporting of nonaffective and somatic syndromes. However, this explanation is unlikely to be true, as major depression showed the expected excess comorbidity with anxiety disorders and with chronic somatic disorders (Ormel et al. 1991; van Hemert et al. 1993).

Thus, this study contributes to the evidence that RBD is a clinical entity associated with significant psychosocial impairment. This diagnostic entity cannot be substituted for by any of the established DSM-III-R diagnoses.

Clinical validity of RBD: relationship to suicidal tendencies

Subjects with the diagnosis of RBD carry an elevated risk for suicidal ideation and suicide attempts. The risk of suicide is most pronounced among subjects with MDE and RBD, with patients with RBD without MDE being at a higher risk than subjects with MDE but without RBD. This peculiar relationship between subtypes of depression and suicidality is not only observed in the present general practice sample, but also in the general population sample studied by Angst et al. (1990), and in the psychiatric outpatient sample studied by Montgomery et al. (1992). There is no report in the literature which is at variance with these observations. Thus, this configuration seems to be a rather universal one. Therefore, the new diagnostic category of RBD may serve as a major tool for the identification of subjects at elevated risk for suicide attempts. Longterm treatments to be developed for RBD should consider in particular the effects on suicide ideation and attempts.

Subthreshold RBD

Subthreshold RBD is characterized by reduced recurrency or by a more irregular recurrent course. This general practice study as well as the psychiatric outpatient study by Montgomery et al. (1992) observed a high proportion of erratical and irregular distribution of the multiple episodes over the last 12 months. In this study, the prevalence of brief depression with highly recurrent episodes during the last 12 months failing to meet the criterion of monthly occurrence was substantially greater (subthreshold RBD) than that of the stringently defined RBD. As is predictable from this constellation, the degree of symptomatic and psychosocial impairment was somewhat in between RBD and patients without current depression; the degree of impairment was still substantial compared to the group of nondepressed patients. These results argue for a less stringent definition of RBD than that proposed by Angst et al. (1990). For the requirement of monthly occurrence of brief depressive episodes, for example, could be substituted the requirement of nearly monthly occurrence (i.e. at least one episode in at least 10 months over a 12-month period). However, all operational definitions are to some extent artificial. Although there are currently no alternative operational definitions of diagnostic categories, the data presented are more compatible with the view that the degree of impairment varies continuously with the number of brief episodes during a defined time interval.

Treatment of RBD

Although patients with RBD are more psychosocially impaired than patients without depressive disorders, antidepressent drugs were not prescribed substantially more often to patients with RBD (in absence of major depression)

compared to patients without any depressive disorder. Prescription of antidepressants was unexpectedly rare in general practice patients, given in the relatively high rate of current depressive disorders. Among the various comparison groups in this study, only patients with major depression received antidepression treatment signifcantly more often than patients without any depressive syndrome. The very low rate of antidepressant pharmacological treatment in patients with RBD but without MDE cannot be explained by the application of other psychological treatments. None of the 300 patients recruited for this study was involved in a specified psychotherapy treatment; other nonantidepressant psychotropic drugs were also not prescribed more often than to patients without any depressive syndrome.

The reasons for the undertreatment of RBD are unclear, given the data available from this study. One reason might be that general practitioners believe an efficient treatment to be lacking (Montgomery et al. 1992b). However, although efficacious treatments for this new condition have not yet been established, the efficacy of classical tricyclics prescribed on a long-term basis to control RBD still needs to be explored. In addition, reporting of psychological problems by the patient may be the main criterion for the general practitioner's choice of treatments. This cannot be the only explanation, however, since RBD patients mentioned psychological problems only slightly less often than MDE patients, and antidepressants are substantially more often prescribed in patients with MDE compared to those with RBD.

Both reasons might contribute to the lack – both absolute and relative to MDE – of specific antidepressant treatment. The observed undertreatment of RBD warrants the development of treatment strategies tailored to brief depression with a highly recurrent course. The substantial social impairment and increased risk of suicide ideation and acts in RBD patients underscore the need for appropriate treatment.

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