

# The Concept of Distinct but Voluminous Groups of Bipolar and Unipolar Diseases

## II. Unipolar Diseases

A. Marneros, A. Rohde, and A. Deister

Psychiatric Department of the University of Bonn, Sigmund-Freud-Strasse 25, W-5300 Bonn 1, Federal Republic of Germany

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**Summary.** Seventy-six unipolar affective and 45 unipolar schizoaffective patients were compared using the same instruments as mentioned in part I of this study (this issue). In contrast to bipolar diseases significant differences regarding age at onset were found between the unipolar groups: schizoaffective unipolar patients became ill at a significantly lower age than affective unipolar patients (about 8 years). No other sociodemographic differences were found between the two groups. Patterns of course were found to be similar in both unipolar groups. Unipolar affective patients had a more favourable long-term outcome (GAS and WHO/DAS) than unipolar schizoaffective ones. Altogether, unipolar affective and unipolar schizoaffective disorders seem to have more similarities than differences.

**Key words:** Affective disorders – Schizoaffective disorders – Unipolar diseases – Premorbid features – Long-term course and outcome

### Introduction

The dichotomy of affective disorders into unipolar and bipolar forms, based on significant differences between the two groups, has been broadly established (Angst 1966, 1980a, b; Perris 1966, 1969; Winokur and Clayton 1967). Similarly, there exists a dichotomy between unipolar and bipolar schizoaffective disorders (Angst 1986, 1989; Marneros et al. 1989 a–c; Rohde et al. 1990). In part I of this study (Marneros et al., this issue) we showed that there are very strong similarities between bipolar affective and bipolar schizoaffective disorders, so that the postulation of a distinct but more voluminous group of bipolar diseases with two subtypes (affective and schizoaffective) is not out of place.

The aim of this part of the study is to investigate similarities and differences between unipolar affective

and unipolar schizoaffective disorders, testing the hypothesis of a unique group of unipolar diseases.

### Material, Methods and Definitions

The material and methods of the follow-up investigation, criteria of affective and schizoaffective disorders, and definitions of unipolar and bipolar forms are described in part I (in this issue). In this part of the study we investigated 76 unipolar affective and 45 unipolar schizoaffective patients.

### Results

For definitions and explanations of variables and terms used see the appropriate sections of part I (this volume).

#### *Sociodemographic and Premorbid Data*

No significant differences were found between affective unipolar and schizoaffective unipolar disorders regarding sex distribution, but there was a significant difference regarding age at onset (Table 1). Schizoaffective unipolar patients became ill at a significantly lower age than unipolar affective patients (on average about 8 years earlier). No significant differences were found regarding educational level, premorbid social interactions, frequency of mental illness in the family, broken home situation, presence of life events, season of birth (Table 2), original social class (parents' social class), patients' social class at onset or, highest achieved social class (for definitions see part I, Table 3). On global comparison of the total group of affective unipolar and schizoaffective unipolar patients regarding stable heterosexual partnership before onset (Table 2) and civil status "married" at onset, there exists a significant difference in favour of unipolar affective patients. But these differences depend

**Table 1.** Features of population studied

	Schizo-affective unipolar (n = 45)	Affective unipolar (n = 76)	
Sex			
Male	24.4%	21.1%	$P = 0.665^a$
Female	75.6%	78.9%	
Age at onset (years)			
Arithmetic mean	32.2	38.1	$P = 0.003^{**b}$
Median	30.0	38.0	$P = 0.005^{**c}$
Standard deviation	10.5	10.6	
Minimum value	15	17	
Maximum value	58	63	
Length of observation time (years)			
Arithmetic mean	27.0	29.1	$P = 0.209^b$
Median	28.0	26.0	$P = 0.717^c$
Standard deviation	9.7	8.2	
Minimum value	10	10	
Maximum value	56	53	

<sup>a</sup> Chi-square test; <sup>b</sup> *t*-test; <sup>c</sup> Mann-Whitney U-test

\*  $P < 0.05$ ; \*\*  $P < 0.01$

on the age of the patients: considering only patients older than 25 years and breaking down by sex of the patient, we did not find any differences between affective and schizoaffective unipolar patients (Table 2). Regarding premorbid personality, we found in schizoaffective unipolar patients more asthenic/low-self-confident personalities and fewer obsessoid personalities (Table 2; for definitions see part I); however, the difference shows no significance. The same limitations and possible shortcomings described in part I for the evaluation of personality type are valid also for the unipolar patients. Regarding occupation at onset we found fewer housewives but more white collar workers in the schizoaffective unipolars than in the affective unipolars, although the difference was not statistically significant (Table 2).

Summarizing, it can be said that the most important sociodemographic difference between the two groups concerns the age at onset.

### Long-Term Course

No significant differences between affective unipolar and schizoaffective unipolar disorders were found regarding: polyphasic course (more than three episodes during course), onset with long prodromal syndromes (> 6 months), annual frequency of episodes, number of cycles, annual frequency of cycles, average length of episodes and cycles, or activity and inactivity of illness (Table 4; for definitions see part I).

### Long-Term Outcome

**Level of Functioning according to GAS.** The level of functioning of the two groups of patients, evaluated ac-

**Table 2.** Premorbid and sociodemographic features

	Schizo-affective unipolar (n = 45)	Affective unipolar (n = 76)	
Educational level			$P = 0.338^a$
Lowest level	11.1%	3.9%	
Low level	57.8%	55.3%	
Middle level	13.3%	13.2%	
High level	17.8%	27.6%	
Occupation at onset			$P = 0.056^a$
Unemployed	0.0%	0.0%	
Housewife	37.8%	53.9%	
Unskilled worker	13.3%	9.2%	
Skilled worker	4.4%	6.6%	
White collar worker	35.6%	17.1%	
Top white collar worker	2.2%	5.3%	
Self-employed	0.0%	6.6%	
In training	6.7%	1.3%	
Stable heterosexual partnership before onset (> 6 months)			
Total	73.3%	90.8%	$P = 0.011^{*a}$
Patients older than 25 years	90.3%	92.6%	$P = 0.694^a$
Female patients > 25 years	96.0%	90.9%	$P = 0.731^a$
Male patients > 25 years	66.7%	100.0%	$P = 0.163^a$
Married at onset			$P = 0.001^{***a}$
Total	60.0%	85.5%	
Patients older than 25 years	77.4%	88.2%	$P = 0.164^a$
Female patients > 25 years	80.0%	85.5%	$P = 0.540^a$
Male patients > 25 years	66.7%	100.0%	$P = 0.163^a$
Premorbid Personality (global categories)			$P = 0.091^a$
Obsessoid (typus melancholicus)	34.9%	52.0%	
Asthenic/low self-confidence	44.2%	25.3%	
Sthenic/high self-confidence	20.9%	22.7%	
Premorbid social interactions			$P = 0.292^a$
Tendency to isolation	25.0%	34.2%	
No tendency to isolation	75.0%	65.8%	
Mental illness in the family	62.2%	59.2%	$P = 0.743^a$
Broken home situation	33.3%	25.0%	$P = 0.324^a$
Life events			
Before first episode	51.1%	52.6%	$P = 0.871^a$
At least once during course	85.7%	80.0%	$P = 0.706^a$
Episodes with life event	28.9%	34.6%	$P = 0.177^a$
Season of birth			$P = 0.163^a$
Spring (March to May)	33.3%	19.7%	
Summer (June to August)	15.6%	31.6%	
Autumn (September to November)	28.9%	25.0%	
Winter (December to February)	22.2%	23.7%	

<sup>a</sup> Chi-Square test; <sup>b</sup> *t*-test; <sup>c</sup> Mann-Whitney U-test

\*  $P < 0.05$ ; \*\*  $P < 0.01$

**Table 3.** Social classes

	Schizo-affective unipolar (n = 45)	Affective unipolar (n = 76)	
Parents' social class			$P = 0.456^a$
I	2.2%	6.6%	
II	15.6%	13.2%	
III	31.1%	28.9%	
IV	42.2%	32.9%	
V	8.9%	18.4%	
Patient's social class at onset			$P = 0.278^a$
I	0.0%	6.6%	
II	13.3%	21.1%	
III	35.6%	31.6%	
IV	44.4%	32.9%	
V	6.7%	7.9%	
Patient's highest achieved social class			$P = 0.452^a$
I	2.2%	9.2%	
II	15.6%	19.7%	
III	31.1%	32.9%	
IV	44.4%	31.6%	
V	6.7%	6.6%	

I, Upper classes, upper middle class; II, middle middle class; III, lower middle class; IV, upper lower class; V, low lower class

<sup>a</sup> Chi-square test

cording to the Global Assessment Scale (GAS), showed significant differences regarding the distribution of the various categories (Table 5) as well as regarding the average score: affective unipolar patients had a significant better outcome according to GAS than schizoaffective unipolars. In particular the categories "severe" and "very severe" difficulties (score 0–50) were found in nearly one-quarter of the schizoaffective unipolar patients, but in only 1.3% of the affective unipolars.

**Disability according to WHO/DAS.** Evaluating outcome according to the Disability Assessment Schedule (WHO/DAS) the unipolar affective patients had also a slightly more favourable outcome than schizoaffective unipolars. The average score, however, did not differ between the two groups (Table 5).

**Social Consequences of the Illness.** The comparison of negative social consequences of the illness, reflected in the living situation at time of follow-up, downward occupational drift, downward social drift, premature retirement and non-achievement of the expected social development, showed no differences between affective unipolar and schizoaffective unipolar patients (Table 5).

## Conclusions and Discussion

In contrast to bipolar diseases (part I of the study, same journal) a significant difference was found regarding age

**Table 4.** Parameters of long-term course

	Schizo-affective unipolar (n = 45)	Affective unipolar (n = 76)	
Polyphasic course	42.2%	46.1%	$P = 0.682^a$
Prodromal symptoms (> 6 months)	28.9%	34.2%	$P = 0.545^a$
Annual frequency of episodes			
Geometric mean	0.14	0.12	$P = 0.214^d$
Median	0.13	0.12	$P = 0.256^c$
Standard deviation	0.16	0.08	
Minimum value	0.03	0.04	
Maximum value	0.91	0.44	
Number of cycles			
Number of patients	37	68	
Geometric mean	3.1	2.7	$P = 0.420^d$
Median	3.0	3.0	$P = 0.431^c$
Standard deviation	3.5	2.9	
Minimum value	1	1	
Maximum value	15	16	
Annual frequency of cycles			
Number of patients	37	68	
Geometric mean	0.27	0.22	$P = 0.220^d$
Median	0.28	0.20	$P = 0.122^c$
Standard deviation	0.37	0.46	
Minimum value	0.05	0.03	
Maximum value	1.50	3.0	
Average length of episode (months)			
Geometric mean	1.9	1.8	$P = 0.758^d$
Median	2.4	2.3	$P = 0.788^c$
Standard deviation	2.0	1.3	
Minimum value	0.7	0.3	
Maximum value	12.0	7.5	
Average length of cycles (months)			
Number of patients	37	68	
Geometric mean	32.7	40.2	$P = 0.286^d$
Median	41.9	61.6	$P = 0.329^c$
Standard deviation	62.9	63.2	
Minimum value	9.2	4.0	
Maximum value	227.8	349.5	
Activity of illness (years)			
Arithmetic mean	13.3	15.9	$P = 0.278^b$
Median	11.0	14.52	$P = 0.349^c$
Standard deviation	11.2	12.8	
Minimum value	0.0	0.0	
Maximum value	41.0	51.0	
Inactivity of illness (years)			
Number of patients	34	63	
Arithmetic mean	16.6	15.6	$P = 0.550^b$
Median	17.5	19.0	$P = 0.744^c$
Standard deviation	9.3	7.1	
Minimum value	4.0	4.0	
Maximum value	34.0	23.0	

<sup>a</sup> Chi-square test; <sup>b</sup> *t*-test; <sup>c</sup> Mann-Whitney U-test; <sup>d</sup> *t*-test (log-values)

\*  $P < 0.05$ ; \*\*  $P < 0.01$

**Table 5.** Long-term outcome and social consequences of the illness

	Schizo-affective unipolar ( <i>n</i> = 45)	Affective unipolar ( <i>n</i> = 76)	
Global Assessment Scale			<i>P</i> = 0.004** <sup>a</sup>
No difficulties (score 91–100)	55.6%	63.2%	
Slight difficulties (score 71–90)	13.3%	21.1%	
Moderate difficulties (score 51–70)	8.9%	14.5%	
Severe difficulties (score 31–50)	15.6%	1.3%	
Very severe difficulties (score 0–30)	6.7%	0.0%	
Arithmetic mean	77.4	88.3	<i>P</i> = 0.005** <sup>b</sup>
Median	91.0	93.0	<i>P</i> = 0.469 <sup>c</sup>
Standard deviation	28.8	13.3	
Disability Assessment Schedule			<i>P</i> = 0.048** <sup>a</sup>
Excellent adjustment (score 0)	62.2%	63.2%	
Very good adjustment (score 1)	17.8%	22.4%	
Good adjustment (score 2)	6.7%	9.2%	
Fair adjustment (score 3)	2.2%	5.3%	
Poor adjustment (score 4)	11.1%	0.0%	
Very poor adjustment (score 5)	0.0%	0.0%	
Living situation at end of observation time	( <i>n</i> = 41)	( <i>n</i> = 57)	<i>P</i> = 0.158 <sup>a</sup>
Mental illness without impact on autarky	85.4%	94.7%	
Without autarky because of mental illness	9.8%	5.3%	
Permanent hospitalized	4.9%	0.0%	
Downward occupational drift (without housewives)	( <i>n</i> = 31) 29.0%	( <i>n</i> = 31) 29.0%	<i>P</i> = 1.000 <sup>a</sup>
Downward social drift (without housewives)	( <i>n</i> = 27) 18.5%	( <i>n</i> = 24) 20.8%	<i>P</i> = 0.852 <sup>a</sup>
Premature retirement (because of mental illness)	( <i>n</i> = 31) 19.4%	( <i>n</i> = 31) 25.8%	<i>P</i> = 0.544 <sup>a</sup>
Achievement of the expected social development	( <i>n</i> = 45) 80.0%	( <i>n</i> = 76) 84.2%	<i>P</i> = 0.554 <sup>a</sup>

<sup>a</sup> Chi-square test; <sup>b</sup> *t*-test; <sup>c</sup> Mann-Whitney U-test

\* *P* < 0.05; \*\* *P* < 0.01

at onset between affective unipolar and schizoaffective unipolar patients. Affective unipolar patients became ill at a significantly higher age than schizoaffective unipolar patients, in agreement with findings of former investigations (Angst 1986, 1989). This is a very important difference, and should not be underestimated, but it is also the only relevant difference regarding sociodemographic and premorbid data found between the two unipolar groups.

Unipolar affective and unipolar schizoaffective disorders have similar patterns of course, differing from those of bipolar affective and schizoaffective disorders (Angst 1986, 1989; Winokur et al. 1990; Marneros et al. 1989a–c; Rohde et al. 1990). This finding may support the as-

sumption of a close relationship between affective and schizoaffective unipolar patients.

Regarding long-term outcome, significant differences were found between the two unipolar groups, as expected. But not all aspects of long-term outcome differ significantly between the two groups. The differences found concerned mainly the disturbances of level of functioning. The differences found in regard to disability according to the criteria of the WHO were much more moderate.

In spite of differences in age at onset and in some aspects of outcome, it seems that unipolar affective and unipolar schizoaffective disorders have considerable similarities. Nevertheless, the two differences found are relevant differences, which, together with the different psychopathology, make the assumption of a unique entity of “unipolar diseases” difficult, at least more difficult than in bipolar disorders. Perhaps future research can “clean” more precisely the group of unipolar schizoaffective patients. In other words, more precise identification of the so-called schizodominant unipolar affective disorders can show whether the differences found are a result of inhomogeneity of schizoaffective disorders. But first of all we must agree in a definition of schizodominance (intensity, frequency, number or duration of schizophrenic symptoms; occurrence of pure schizophrenic episodes; or all together; or some combination). Using the term schizodominance as we have done in our Cologne study, i.e. referring to the proportion of pure schizophrenic episodes to other types of episodes during the course, schizodominant cases are rare and cannot be the only explanation for the differences found (see also part III).

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