Eur Arch Psychiatr Neurol Sci (1984) 234:21-29

European Archives of Psychiatry and Neurological Sciences

The Zurich Study

II. The Continuum from Normal to Pathological Depressive Mood Swings

J. Angst and A. Dobler-Mikola

Psychiatric University Hospital, Zurich, Research Department (Head: Prof. Dr. med. Jules Angst), P.O. Box 68, CH-8029 Zurich, Switzerland

Summary. The longitudinal study of a cohort of 591 men and women aged 20 and 21 years respectively at outset, and 23/24 years at a subsequent investigation, was analyzed for the manifestation of depressive syndromes. The syndromes were grouped according to their duration: 1 week once or twice per year (group B), 1 week three or more times per year (C), 2 weeks (D), 4 weeks (E) and 3 months (F). Prevalence rates are given over 1 month, 3 months and 1 year, subdivided by sex. Unexpected identical prevalence rates are found for both sexes up to 3 months. Over 1 year, the ratio shifts to favor the women.

Setting out from the hypothesis of a continuum of depressive mood from normal to pathological, groups B to E were examined with respect to the prevailing symptomatology (assessed with an interview and a self-rating questionnaire, the SCL-90R). We found no relevant qualitative differences, only a trend of somatic symptoms becoming more prominent along with increasing duration of episode. Symptomatology thus does not point to further classification. Other criteria, such as subjective impairment, social impairment, illness behavior, discussing depressive mood with parents/friends/employer, treatment, all favor the assumption of a continuum of depressive syndromes from normal to pathological.

Key words: Epidemiology - Longitudinal study - Depression - Continuum from normal to pathological - Sex ratio

1. Problem

In the course of the past 25 years, much psychiatric research has been dedicated to depression. It is therefore surprising that the question of the definition of depressive syndromes has been resumed and once again centers on the core of research. Usually, one differentiates between depressive symptoms, depressive syndromes, and depression as a diagnosis (Lehmann 1966). The ICD-9 contains numerous forms of depression which, however, are not sufficiently validated.

The development of operationalized psychiatric criteria for diagnosis which was initiated in the United States by the St. Louis school (Feighner et al. 1972; Spitzer et al. 1978 [RDC]), and finally the introduction of the DSM-III, entailed an important tightening up of definitions. The standard criteria for a diagnosis of 'major depressive episode' are: mood changes, presence of a minimum number of specified depressive symptoms, and minimum duration. On the other hand, social consequences of depression are part of the RDC criteria only. The duration of a depressive episode is a fact of special consideration. A minimum duration of 2 weeks for a single episode is required by both RDC and DSM-III, of 4 weeks by Feighner criteria. Though it is admitted that shorter lasting mood changes also occur – episodes of only a few days can for instance be observed even in severely ill manic-depressive bipolars – the DSM-III does not give a definition of 'minor depression', in contrast to 'major depressive disorder', but classifies them in a residual category of 'atypical depression'. A part of them may correspond to many subaffective dysthymic probands that could be classified as 'subunipolar depressions', according to Akiskal et al. (1981).

Our study covers a range from the hypothesis of a quantitative and qualitative continuum from sad or depressive mood changes of a healthy person, to so-called reactive or neurotic depression, and the more severe endogenous depression. It has been known for some time that those who suffer from more severe depression and who see a psychiatrist, are only a minority of the real number of those affected, and that the majority suffer from milder depressive syndromes which figure largely in general practice. If we started from the hypothesis of a continuum towards norm, we would have to advance the presumption that milder depressive mood swings which do not require treatment are much more frequent. The criteria for determining the degree of severity of depressive disorders could be: duration, number and prominence of depressive symptoms and their subjective and social consequences, including impairment in different roles. The hypothesis of a continuum does not exclude the occurrence of certain symptoms, such as delusions, in severe cases only.

We will bypass the traditional operational criteria in favor of a minimum definition of a depressive syndrome and start with the duration of depressive mood changes in the general population. 'Depressive mood' is not defined as a symptom but a syndrome of compound characteristics (see Methodology). Independent of prevalence rates, additional symptomatology, subjective impairment, and social consequences of depressive syndromes will be analyzed. Only later will different classifications be investigated. In such a way, the validity of currently used classifications will be examined from a point of view of a range from normal to pathological, with regard to symptoms and social consequences.

Project supported by grants 3.804.76 and 3.956.80 from the Swiss National Science Foundation

2. Methodology

The design, investigation methods, selection of samples and other methodological aspects have been presented in a previous paper (Angst et al. 1984); 300 19-year-old men and 300 20-year-old women were selected from the respective age cohort of the total population of the Canton of Zurich and subsequently questioned four times over 4 years. In the frame of the investigations, we inquired into 25 groups of complaints, including one bearing on the depressive syndrome. The second and fourth questioning were carried out as in-person interviews.

The initial question into the depressive syndrome was the following: 'Has it happened, during the past 12 months, that you could not find pleasure in anything, that you had no energy, or have you had the blues?'. If the duration of a depressive episode exceeded 4–7 days or if such states were more frequent than once a month, seven core symptoms of mood and drive were investigated in the 1979 interview, viz. joyless, depressive mood, sad, sick of life, loss of interest, loss of efficiency, feelings of inferiority.

For the interview of 1981, this spectrum of core symptoms was amplified in a way such as to attain consistency with the DSM-III definitions. Symptoms were added, such as poor appetite, weight changes, very poor or excessive sleep, slowness in movement or speech, agitation, feeling restless, excessive feelings of guilt, difficulties in thinking and/or concentrating.

Some additional depressive symptoms such as sleep disturbances, suicidal ideas and somatic symptoms, were assessed independently, in the frame of other syndromes. In this way, we tried to discover which symptoms were connected with the depressive syndrome more than by mere coincidence, without having specified this objective in the interview. We have to accept, however, that in this way the depressive syndrome is primarily defined by a mere decrease in mood and drive. It is obvious that changes in mood and drive within the 'normal' scope are simultaneously included, which we expected. If a depressive syndrome was present, additional questions were asked about time period of occurrence, frequency, and duration, as well as subjective and objective consequences. The pertinent structure has been described by Angst et al. (1984).

At the interview in 1979, the sample population totaled 591 persons (292 men and 299 women). At the second interview, in 1981, 456 persons of the original sample (220 men and 236 women) remained. Since all drop-outs happened at random, the sample is still representative (Angst et al. 1984).

3. Classification of Depressive Syndromes

As explained above, the depressive syndromes were in a first step only classified on the grounds of their duration, taking into consideration the maximum duration of the single episodes as well as the cumulative duration over 1 year for recurrent episodes. The application of these criteria resulted in the obtention of five groups (A–E) in 1979 and of six groups (A–F) in 1981. These groups are defined in Table 1.

It clearly transpires from this classification that the majority of the probands (432 of 591, or 73%) had depressive mood swings sometime during the previous 12 months, and that to some extent phenomena were registered which may not be labeled as pathological. The number of persons listed in Table 1 should not be extrapolated directly to the general population, because we oversampled, on purpose, young adults who had deviated from the standards by high total scores on the symptom check list SCL-90 of Derogatis (1977) 1 year before. The prevalence rates for our population are presented next.

Table 1. Classification of 'cases' by length of episodes

Group	Duration of episodes	Cumulative duration/year	Number (1979)	Number (1981)
A	–	–	159	202
B	≦ 1 week	≦ 2 weeks	220	84
C	≦ 1 week	2–6 weeks	112	95
D	2–3 weeks	2–6 weeks	55	19
E	≧ 4 weeks	≧ 4 weeks	45	23
F	≧ 3 months	≧ 3 months	–	26
			591	449

4. Prevalence Rates of Depressive Syndromes

The epidemiological literature of psychiatric complaints very often shows little precision as to the time spans of the prevalence rates given. For instance, point-prevalence is often understood in a sense of 4 weeks or more. It is also common to dispense with point-prevalences and to indicate 1-year prevalences or lifetime prevalences instead. The most frequent source of error with prevalence data is dissimulation, denial and forgetting of earlier events. It is also obvious that point-prevalence rates are the most reliable ones, because forgetting is of minor importance. Point-prevalence could however sometimes be not too valid for milder psychic disorders, because some of the latter are characterized by rapid swings. Cross-sectional observation is therefore not necessarily representative and excludes too many cases. In face of these difficulties, a combination of point and period-prevalence would be preferable.

The question of different prevalences is further analyzed in Table 2.

It gives prevalence rates for the same population at an interval of 2 years, for a 4-week period, 3 months and 1 year. The prevalence rates thus assessed should cumulatively increase with augmenting time spans. This is in fact the case in our sample, but to an unequal extent for the various groups. For group C, with '1-week depressive episode several times a year', the prevalence rates do not increase markedly because these people have recurrent mood swings. All other groups do show an augmentation, as expected, with some sex-specific differences, however. The increase from 3-month to 1-year prevalences is clearly higher in females. In our sample, there are no marked sex-specific differences in 4-week and 3-month prevalence rates, while such differences do occur in 1-year prevalences for longer lasting depression at a rate of 1 : 2, consistent with indications in the literature. As the differences in 4-week and 3-month prevalence rates are not very prominent, we do not interpret them as representing a true sex-specific difference, but rather as being the result of different event-processing and forgetting (Angst and Dobler-Mikola 1984).

Some instability is also found between the interviews of 1979 and 1981 respectively. The short-lasting depressive episodes (1 week, once a year) tend to become rarer while the prevalence rates for longer lasting depression increase.

Table 3 shows the treatment prevalence rates, estimated for the whole population of young Zurich adults. It can be seen

Table 2. Prevalence rates in 1979 (age 20-21) and 1981 (age 23-24)

		Group											
		A		B		C		D		E		F	
Duration of episode		No depr.		1 week		1 week recurrent		≧ 2 weeks		≧ 4 weeks		≧ 3 months	
Sex		M	F	M	F	M	F	M	F	M	F	M	F
Prevalence rates													
4 weeks	1979	45.0	31.6	11.3	15.8	7.5	11.3	1.9	1.5	0.2	0.1		
	1981	59.5	52.8	4.6	4.4	7.2	12.5	1.2	0.4	1.7	0.1	1.5	3.7
3 months	1979	45.0	31.6	22.3	24.1	13.2	12.5	3.8	4.5	2.1	2.1		
	1981	59.5	52.8	13.8	12.8	9.2	14.2	2.8	0.9	1.8	0.3	2.9	3.7
1 year	1979	45.0	31.6	31.8	36.6	14.4	14.1	5.9	7.8	2.9	9.9		
	1981	59.5	52.8	20.7	15.4	10.5	16.6	3.1	1.1	3.2	8.3	3.0	5.8

Table 3. Treatment prevalence in 1979 and 1981

	Group									
	B		C		D		E		F	
Duration of episode	1 week		1 week recurrent		≧ 2 weeks		≧ 4 weeks		≧ 3 months	
Sex	M	F	M	F	M	F	M	F	M	F
Treatment by physician other than psychiatrist										
1979	1.0	0.2	0.1	0.2	–	0.1	0.2	2.7		
1981	–	–	0.2	1.3	–	0.1	–	0.2	–	1.1
psychiatrist or psychologist										
1979	0.3	–	0.2	0.5	0.2	1.1	0.2	2.2		
1981	–	–	0.3	1.9	–	0.2	–	1.2	–	1.7

that only a part of depressives seek medical care. The relative number of treatments increased parallel to increasing duration of episode. As is often mentioned in epidemiological literature, it could be observed that nearly half of the treatments were performed by physicians other than psychiatrists. In contrast to the prevalence rates shown above (Table 2), the treatment prevalences evidence clear sex-specific differences. Women much more frequently see a doctor because of depressive mood. If we compare the data of both interviews, we can see that men sought treatment even less frequently in 1981 than in 1979, while the contrary applies for the females: in 1979, 2.2% of the males and 7.0% of the women sought medical help for depressive mood changes; the respective figures in 1981 are 0.5% for men and 7.7% for females

5. Symptomatology

Next we will analyze to what extent other functional symptoms and syndromes are associated with the continuum of depression which we have put forth. As already mentioned in Section 2 (Methodology), symptoms and syndromes were not assessed in a similar way:

- In the context of the direct questioning about depressive mood (in 1979), explicit questions were asked about the following seven symptoms: joyless, depressed, sad, sick of life, loss of interest, loss of efficiency, feeling of inferiority.
- Besides depressive mood, another 22 syndromes with typical depressive symptoms – e.g., sleep disturbances, suicidal tendencies, anxiety, etc. – were assessed (Angst et al. 1984). All these syndromes were investigated independently of questions concerning depressive mood.

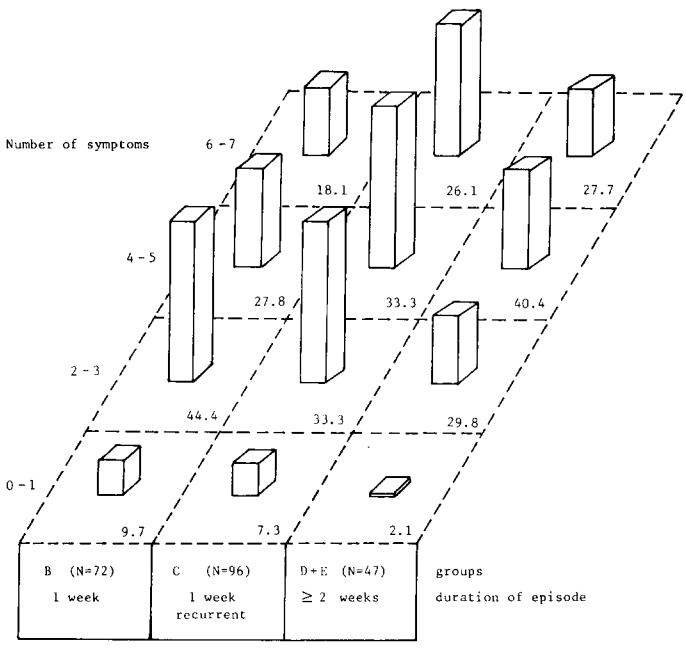

Fig. 1. Number of symptoms in percents for different duration of depressive episodes

Table 4. Depressive symptoms in groups B–E (3 months preceding the interview)

	Group			*P*
	B ($n = 71$)	C ($n = 96$)	D+E ($n = 47$)	
Duration of episode	1 week	1 week recurrent	≧ 2 weeks	
Symptoms				
Joyless	71.8	77.1	78.7	NS
Depressive	43.1	54.2	63.8	NS
Sad	56.3	54.2	61.7	NS
Sick of life	28.2	38.5	38.3	NS
Loss of interest	66.7	72.9	74.5	NS
Loss of efficiency	38.0	51.0	59.7	NS
Feeling of worthlessness	43.7	56.3	53.2	NS

– In the context of each of these syndromes, a number of their typical symptoms were explicitly inquired after.

5.1. Symptoms Assessed in the Context of Depressive Mood

Two questions are of special interest in this connection:

(a) How many single symptoms are mentioned?

(b) Which specific symptoms are mentioned especially often?

In order to exclude to the utmost degree the selective influence of forgetting, we will limit the present – and further – analysis of symptomatology to those depressive manifestations which occurred in the last 3 months.

Figure 1 gives the relative frequencies of the interviewed persons with different numbers of symptoms in the various classes of our depressive continuum. Subjects with four or more symptoms increase from group B (46%) to group C (59%) and are the highest in group D+E (68%). This increment in number of symptoms along with increasing length of depressive episodes clearly coincides with our hypothesis of the existence of a continuum from mild, short-lasting depressive mood changes to endogenous depression.

The relative frequencies of depressive symptoms are shown in Table 4. The symptom which was most frequently mentioned in connection with depressive mood is joylessness; 70% to 80% of all interviewed persons throughout all groups have indicated this symptom. The least frequent symptom was 'sick of life', mentioned by only one-third of the probands. Most symptoms are nearly equally distributed throughout all the classes of our depressive continuum. Only the symptom 'loss of efficiency' shows a tendency to increase in the group of depressive episodes lasting longer than 2 weeks.

Summarizing, we may say that though the number of depressive symptoms increases along with extended length of depressive manifestations, there is no qualitative difference between shorter and longer lasting depressive manifestations.

5.2. Association of Depressive Mood with Other Syndromes

We wish to find out whether and to what extent other syndromes (all of them investigated independently of depression) are associated with depressive mood. We will restrict the time span to 3 months again.

Table 5 confirms that most of the other syndromes do have a significant association with depressive mood. The most distinct association is found for the syndromes 'exhaustion'

Table 5. Correlation of depressive syndrome with other syndromes (3 months preceding the interview)

	Group				*P*<	Cramer's V
	A ($n = 158$)	B ($n = 161$)	C ($n = 97$)	D+E ($n = 49$)		
Duration of episode	No depr.	1 week	1 week recurrent	≧ 2 weeks		
Syndromes						
Stomach	15.2	22.4	29.9	30.6	0.05	0.15
Intestine	5.1	16.2	15.8	28.6	0.0001	0.24
Respiration	3.8	8.1	15.5	10.2	0.05	0.15
Heart	9.5	13.7	14.4	12.2	NS	0.06
Circulation	18.4	29.8	37.1	34.7	0.01	0.17
Exhaustion	6.3	21.7	39.2	24.5	0.0001	0.30
Hypochondriasis	6.9	12.4	20.6	12.2	0.05	0.15
Anxiety	8.2	27.3	38.1	30.6	0.0001	0.27
Phobia	8.2	17.4	26.8	28.6	0.001	0.21
Sleep	13.9	27.9	38.1	32.7	0.0001	0.21
Back	23.4	21.1	34.0	28.6	NS	0.11
Compulsion	5.1	5.6	7.2	16.3	0.05	0.13
Head	33.5	36.0	46.4	18.4	0.01	0.16
Allergy	15.2	24.2	21.7	26.5	NS	0.11
Sexuality	1.9	1.9	5.2	2.0	–	–
Movement disorder	3.8	7.5	21.7	14.3	0.0001	0.23
Swallowing	3.2	4.4	5.2	2.0	–	–

Table 6. Symptoms associated with depression (3 months preceding the interview)

Symptoms typical of all depressive groups (B–E)	Symptoms typical of recurrent brief depressive episodes (C)	Symptoms typical of longer depressive episodes (D + E)
Cramer's V / Symptoms	Cramer's V / Symptoms	Cramer's V / Symptoms
≧ 0.20	*≧ 0.20*	*≧ 0.20*
0.24 vertigo	0.31 loss of concentration	0.24 fear of being left alone
0.22 unrested in the morning	0.27 oversensitivity	0.23 nausea
	0.26 exhaustion	0.22 constipation
	0.26 tiredness	0.22 fear of the coming day
	0.24 loss of performance	
	0.24 concomitant somatic symptoms with anxiety	
	0.23 memory troubles	
	0.22 anxiety attacks	
	0.21 middle insomnia	
	0.20 weakness	
	0.20 early insomnia	
≧ 0.16	*≧ 0.16*	*≧ 0.16*
0.17 palpitations without somatic cause	0.19 avoidance behavior	0.19 situational phobia
	0.17 attacks of trembling	0.18 diarrhea
	0.16 stomach pressure	0.18 abdominal pressure and bloating
	0.16 profuse perspiration	0.18 situational anxiety
	0.16 fear of somatic disease	0.17 fullness in the stomach
		0.17 animal phobia
		0.17 itching
		0.16 stomach pain
		0.16 flatulence
	≧ 0.15	*≧ 0.15*
	0.14 spasmodic stitches	0.15 low blood pressure
	0.14 visual flickering	0.15 fatigue (circulation)
		0.15 early awakening
		0.14 head pressure
		0.13 skin allergies

Table 7. Association of depression with suicidal tendencies (in %, 3 months preceding the interview)

	Group			
	A	B	C	D + E
Duration of episode	No depr.	1 week	1 week recurrent	≧ 2 weeks
Suicidal thoughts or attempts	0.6	13.0	19.8	23.3
Attempts only	–	–	1.2	2.3

Cramer's V = 0.27; $P < 0.001$

and 'anxiety', and 'intestinal troubles' on the somatic side. Other syndromes frequently mentioned by the depressed are 'phobia', 'sleep disturbances' and 'movement disorder'. 'Headaches', 'gastric troubles' and 'circulatory troubles' are also important, but are however also quite frequent in the control group.

Depressive mood thus is seen to be concomitant with numerous physical complaints; and such concomitant complaints often occur even in short-lasting depression. It should be stressed that the association between certain syndromes and depressive mood is not necessarily increasing along with extended duration of the depressive manifestation – some vegetative and other somatic concomitant syndromes also increase and are especially found in group C with 1-week or shorter depressive manifestations occurring several times a year.

5.3. Association of Depressive Mood with Symptoms Pertaining to Other Syndromes

What are the associations of depressive mood with other single symptoms that have been assessed in the frame of the 17 additional syndromes? Table 6 groups symptoms found to be significantly correlated with depressive mood, according to the importance and quality of their association: three symptoms are prominent throughout all the categories of depressive mood – as compared with the control group – with no clear dif-

Table 8. Correlation of depressive syndrome with SCL-90 scales ($\bar{x}$, 4 weeks preceding the interview)

	Group			P	eta^2
	B ($n = 89$)	C ($n = 76$)	D+E ($n = 16$)		
Duration of episode	1 week	1 week recurrent	≧ 2 weeks		
SCL-90 subscales					
Somatization	1.68	1.80	2.08	*	0.04
Obsessive-compulsive	1.92	2.31	2.42	***	0.09
Interpersonal sensitivity	2.01	2.47	2.41	***	0.08
Depression	2.05	2.61	2.69	***	0.15
Anxiety	1.82	2.26	2.37	***	0.10
Anger-hostility	1.81	2.14	2.35	**	0.06
Phobic anxiety	1.41	1.73	1.76	**	0.07
Paranoid ideation	2.10	2.40	2.42	*	0.04
Psychoticism	1.59	2.00	2.00	***	0.12
SCL-90 total score	1.88	2.15	2.12	**	0.05

* $P<0.05$; ** $P<0.01$; *** $P<0.001$

ferences between the groups of depressives: palpitations with no somatic cause, vertigo with circulatory troubles, and feelings of being unrested in the morning.

Some symptoms are especially frequent in group C (short-lasting recurrent depressive episodes): symptoms of exhaustion, panic attacks, initial and middle insomnia, and in addition, physical concomitant symptoms, anxiety states, excessive perspiration with circulatory troubles, and fear of physical illness.

Another set of symptoms can yet be identified, viz. generalized anxiety and phobia, and some somatic disorders, viz. different gastrointestinal troubles, circulatory troubles, and itching. These symptoms, just as suicidal thoughts and attempts, demonstrate a markedly higher frequency in extended depressive manifestations. Table 7 shows the association of depressive mood with suicidal tendencies.

6. Depressive Mood – Self-Rating with the SCL-90R

We examined the connection between the SCL-90R by Derogatis (1977) and our hypothesis of a depressive continuum from two points of view:

1. What and how do the subscales of the SCL-90 differentiate between the various groups of our classification of depressives.
2. Which and of what quality are the associations between each of the SCL-90 items and depressive mood?

Since the self-rating by the SCL-90 relates to the 4 weeks preceding the questioning, we will also restrict the following analysis to persons who have suffered from depressive mood during the 4 weeks prior to the interview.

Table 8 explains the correlation between the classification of depression and the different subscales of the SCL-90. We find a significant association for all scales, in that the scale mean values increase on parallel lines with extension of depressive episode. The most important association is found for 'depression', 'psychoticism' and 'anxiety'. Most of the scales clearly show such difference in their group mean values even between group B (1-week depression, once a year) and group C (1-week depression, several times a year), whereas the increase from group C to the compound group D+E (2-week depression, and longer) is less striking.

Table 9 indicates those items which are associated with depression, listed according to the importance of their association. Most of the psychological items of the SCL-90, such as excitability (nervousness), sadness, inhibition, loss of interest, etc., are those most clearly associated with depression. Most of the somatic symptoms are not indicated more frequently by depressives than by controls.

Finally, we also examined which SCL-90 items differentiate significantly ($P<0.05$) between the groups of depressives. The respective profiles of frequency can be seen in Fig. 2. We can identify typical depressive symptoms which accompany depressive mood the more so the longer a depressive episode lasts. Again, the differences between groups B (1-week depression, once a year) and C (1-week depression, several times a year) represent a more pronounced deterioration of the depressive state than the differences from group C to the compound group D+E (2-week depression, or longer).

7. Subjective and Social Consequences of Depression

7.1. Subjective Worries

In addition to the symptomatology of depression a rating of its consequences was performed. We asked about individual worries and thoughts that had emerged from the experienced depressive state(s). The extent of subjective worrying was to be indicated on an analog-scale (0–100). Table 10 gives the first and third quartiles and the median of the said rating, for each of the depressive groups.

It can be seen clearly that longer lasting depressive episodes provoke much stronger worries than short episodes. It further transpires that not only is the grading on average higher with more severe depression, but also that these groups rate their

Table 9. Correlation of depressive syndrome with SCL-90 items (4 weeks preceding the interview)

Item No.	Question	Cramer's V
		≧ 0.30
30	Feeling blue	
22	Feelings of being trapped or caught	
3	Repeated unpleasant thoughts that will not leave your mind	
54	Feeling hopeless about the future	
57	Feeling tense or keyed up	
2	Nervousness or shakiness inside	
14	Feeling low in energy or slowed down	
28	Feeling blocked in getting things done	
31	Worrying too much about things	
32	Feeling no interest in things	
34	Your feelings being easily hurt	
11	Feeling easily annoyed or irritated	
29	Feeling lonely	
77	Feeling lonely even when you are with people	
59	Thoughts of death or dying	
24	Temper outbursts that you could not control	
79	Feelings of worthlessness	
89	Feelings of guilt	
55	Trouble concentrating	
		≧ 0.25
6	Feeling critical of others	
17	Trembling	
18	Feeling that most people cannot be trusted	
26	Blaming yourself for things	
36	Feeling others do not understand you or are unsympathetic	
23	Suddenly scared for no reason	
41	Feeling inferior to others	
86	Thoughts and images of a frightening nature	
71	Feeling everything is an effort	
40	Nausea or upset stomach	
46	Difficulty making decisions	
50	Having to avoid certain things, places, or activities because they frighten you	
51	Your mind going blank	
87	The idea that something serious is wrong with your body	
		≧ 0.20
84	Having thoughts about sex that bother you a lot	
20	Crying easily	
44	Trouble falling asleep	
75	Feeling nervous when you are left alone	
78	Feeling so restless you could not sit still	
83	Feeling that people will take advantage of you if you let them	
13	Feeling afraid in open spaces or on the streets	
61	Feeling uneasy when people are watching or talking about you	
76	Others not giving you proper credit for your achievements	
7	The idea that someone else can control your thoughts	
9	Trouble remembering things	
21	Feeling shy or uneasy with the opposite sex	
69	Feeling very self-conscious with others	
88	Never feeling close to another person	
43	Feeling that you are watched or talked about by others	

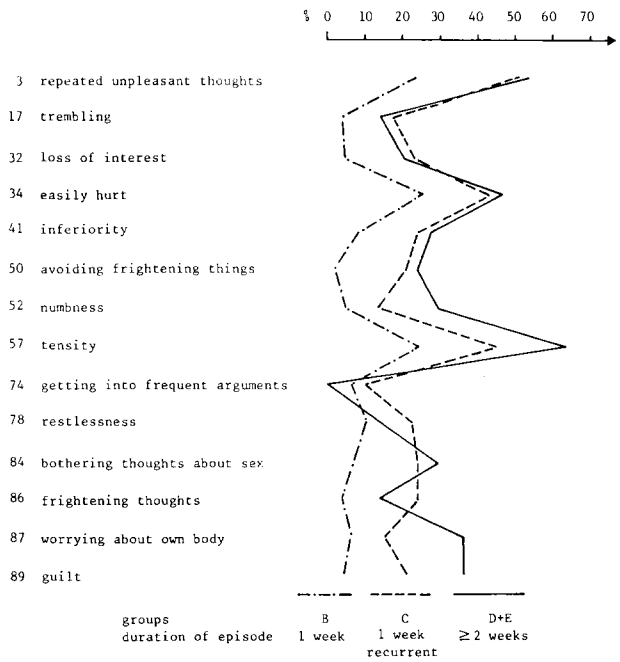

Fig. 2. SCL items differentiating between the 3 depressive groups B, C, D + E (4 weeks preceding the interview)

Table 10. Extent of worrying about the depressive syndrome analog-scale 0-100)

	Group			
	B ($n = 84$)	C ($n = 109$)	D ($n = 52$)	E ($n = 44$)
Duration of episode	1 week	1 week recurrent	≧ 2 weeks	≧ 4 weeks
1st quartile	45	52.2	65	75
Median	70	76	80	85
3rd quartile	86.5	90	95	95.75

worrying homogeneously, in contrast to the groups with shorter lasting depressive episodes who show a much wider range in their grading.

7.2. Social Impairment

Some of the consequences of depressive mood in daily life are listed in Table 11. An approximate 50% stated impairment in the occupational area, at nearly the same rate for both short and longer lasting depressive manifestations. Absence from work, however, increases on parallel lines with extended duration of depressive mood: depression was said to have caused absence from work in 8% of the depressives in group B and in 20% of group E.

Depression also had a negative effect on leisure time activites and social contact in approximately 60% to 80% of all those interviewed. We could find no systematic differences between the various depressive groups.

8. Illness Behavior

In this respect, we have analyzed the following aspects:

– The seeking of professional treatment, differentiating between general medical and psychiatric care.

Table 11. Social impairment in depressive groups B-E (in %)

	Group			
	B ($n = 85$)	C ($n = 111$)	D ($n = 53$)	E ($n = 45$)
Duration of episode	1 week	1 week recurrent	≧ 2 weeks	≧ 4 weeks
Absence from work and/or loss of job	8.2	8.1	11.3	20.0
Reduction of work performance and/or secondary conflicts	48.2	52.3	52.8	33.3
At leisure activities	57.7	64.0	71.7	66.7
Within contacts	65.9	71.2	77.4	66.7

Table 12. Illness behavior in depressive groups B–E (in %)

	Group			
	B ($n = 85$)	C ($n = 111$)	D ($n = 53$)	E ($n = 45$)
Duration of episode	1 week	1 week recurrent	≧ 2 weeks	≧ 4 weeks
Treatment by physician other than psychiatrist	10.6	11.7	15.1	37.8
by psychiatrist/ psychologist	5.9	3.6	1.9	15.6
Self-medication	4.7	8.1	13.2	22.2
Talking with others	3.5	7.2	7.6	4.4
Discussing problems with	70.6	79.3	83.0	91.1
parents	30.6	34.2	43.4	55.6
relatives	5.9	14.4	17.0	11.1
friends	58.8	64.0	66.0	73.3
acquaintances at work with superior or colleagues	22.4	19.8	20.7	15.6
	8.2	5.4	11.3	24.4

- Self-medication, without medical prescription.
- Discussion of depressive state with the most familiar persons of reference.

Treatment is much more frequent with longer lasting depressive episodes (Table 12), one-third being performed by physicians other than psychiatrists. We find almost no medication without medical prescription; throughout all groups it is less than 10%.

Most of those interviewed (70%–91%) discuss their depressive state(s) with the most familiar person(s) of their reference group(s). The frequency of such discussions increases with the severity of depression; thus, in the groups with longer lasting depression nearly everyone discusses his/her complaints with persons of reference. Friends are the most frequent to be contacted for that purpose, followed by parents, while other family members and acquaintances are only rarely chosen. Discussions with employers and collaborators are restricted almost entirely to the longer lasting depressive episodes. While 25% of those interviewed having had depressive states with a duration of more than 4 weeks did discuss it with their superior and/or colleagues at work, the respective number for shorter lasting episodes was only 10%.

9. Discussion of the Findings

In contrast to the usual approach, we did not consider a precise and valid definition of depression, but rather tried to assess the less characteristic, milder and shorter lasting depressive mood swings in a descriptive way. It was not our goal to check diagnostic groups but the hypothesis of a quantitative and qualitative continuum of depression from normal to pathological. The depressive syndrome was defined by the mere presence of depressive changes in mood and drive. A classification by duration of depressive episodes and an analysis of the pertinent characteristics were performed.

Thus, unlike most other studies, ours permitted us to assess short-lasting (1 week) depressive manifestations. These were split into group B (1-2 episodes a year) and group C (higher frequency). On the grounds of the frequency with which they occur and of the criteria they meet, the depressive states in group B can be said to correspond to the norm, while those of group C – short-lasting and recurrent – show surprising characteristics. In fact, they display an abundance of depressive symptoms, pronounced subjective suffering and a remarkable frequency of treatment. The number of symptoms is even higher than that of persons who suffer from 2- to 4-week depressive episodes. It is a striking fact that the symptom pattern in these recurrent, short-lasting depressive states is characterized by a predominance of psychic symptoms which are largely consistent with those typical of a major depressive disorder. Parallel to increasing duration of depression (2 to 4 weeks), the number of psychic symptoms decreases somewhat, while the somatic symptoms and the severity – by social consequences and subjective impairment – clearly rise. The fact that somatic symptoms prevail in longer lasting and more severe depression will need further clarification. If a change in structure takes place with increasing duration, this could be due to a psychological processing, with the first changes occurring on a psychic level; then, if the disturbances persist, the tendency to introspection might increase and the somatic symptoms therefore become more prominent. On the other hand, it is also possible that the underlying illness manifests itself with more somatic symptoms, the longer it lasts and the more severe it is. The qualitative difference in symptomatology could also be a consequence of different types of depression, therefore disproving the hypothesis of a continuum from mild to severe depression.

The analysis of the symptomatology assessed by the interview further shows that short and longer lasting depressive manifestations do not, in principle, differ qualitatively. The same is true for subjective complaints, assessed by the SCL-90 and analyzed on the level of scales and single symptoms. Symptoms and some functional syndromes often show higher frequency linear to increasing duration of depressive manifestations. The same applies for subjective impairment, measured with an analog-scale, and illness behavior. It is only very surprising that even short-lasting depressive episodes (B) induce remarkable subjective suffering and a rapid impairment in occupational performance. The majority

of the probands have experienced shorter or longer lasting depressive episodes as a problem, have suffered from it, and have discussed it with their parents or friends. We observed simultaneous increase of duration of manifestation and occupational impairment, especially absence from work.

The examined aspects of depression (symptomatology, assessed by interview or self-rating), subjective impairment (assessed with an analog-scale), occupational impairment and illness behavior all jointly point to the fact that depressive mood swings, irrespective of their duration, induce marked impairment, and that if their duration is considered, they accompany continuously increasing number of symptoms and the various aspects of impairment. This augmentation is in principle linear and compatible with the hypothesis of a continuum. It is obvious that more attention should be paid in future to the depressive manifestations *below* the threshold of the usual criteria (minimum duration 2 weeks). In particular shorter-lasting episodes possibly represent a special risk group (C), the more so if they are recurrent. It was not the purpose of the present study to find out whether these are depressive personalities with continuous mood swings, or whether this is a chronic dysthymia in the sense of DSM-III. Our descriptive approach rather leads us to the assumption that short-lasting depressive manifestations do not in principle differ from the longer lasting ones. Periodicity is however a criterion for the severity of an illness, independent of the duration of an episode. Thus, the short-lasting recurrent depressive disorders should henceforth be considered as a rather important group.

On the whole, we could not find sufficient facts to disprove the hypothesis of a continuum from short-lasting depressive mood swings within the norm (group B) to pronounced episodes of at least 4 weeks duration. In this respect, we wish to stress that with our descriptive approach, which concentrates on symptomatology and subsequent subjective and social consequences, no statement could or should be made on eventual diagnostic subclasses. Nor do we want to describe here how far environmental (e.g. life events) or genetic (e.g. positive family history for depression) influence could render further subclassification possible. Our respective findings will be presented later and do not support a further diagnostic subclassification. We also refrained from presenting the bipolar mood changes; these will be dealt with in a subsequent study of diagnostics.

The *prevalence rates* of depressive mood swings, assessed over 4 weeks, 3 months and 1 year, seem to be particularly interesting. They show a high variability, depending on duration of episode, age and especially gender, possibly also on investigation methods. Our findings point to the fact that milder depressive disorders, as they have been assessed in the present study, are equally frequent both in males and females in a 20-year-old population. However, this applies merely if a depressive episode is defined only by the presence of a depressive syndrome and by its duration, and if the prevalence was assessed over a short period (1 and 3 months). The more the depressive episode dates back, the less can any reliable indications be expected from the men, which will produce a sex-difference in favor of the women. This error grows with the time span, i.e., it is the most significant in lifetime prevalence data. We leave the question aside whether men forget or suppress their depressive syndromes more easily, or whether they disregard them, to some extent, because of their social undesirability.

Acknowledgement: The authors thank P. J. Clayton, M. D., University of Minnesota, Minneapolis, for reviewing and advicing in the preparation of this paper.

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Received October 27, 1983