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The effect of the family relationship on in-patient treatment of severe major depression

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ABSTARCT

The effect of the family on the course of major depression in hospitalised patients was studied. Does close contact between patients and their families help to overcome depression or does it aggravate the symptoms. Lots were drawn to divide 47 patients with severe major depression into two groups. Patients in group 1 (n = 19) had no contact with their families, while patients in the control group (n = 20) were free to determine the amount of family contact themselves. The development of the patients' depression was assessed once a week on the basis of five scales. There was a significant difference between the two groups in the first three weeks. Patients who had had no contact with their families recovered much more quickly. This effect can also be reliably reproduced in the treatment of major depression in routine clinical practice. If the results are confirmed, this method could promote the recovery of many patients with major depression. In addition, the findings show the importance of psychogenic factors in the course of any form of severe depression.

Severe forms of major depression frequently pose a considerable problem in terms of therapy in so far as it often takes a very long time to achieve a certain degree of improvement in the symptoms. There is still no reasonably reliable way of improving severe states of depression within a short space of time. Antidepressants or neuroleptics often do not help. On the other hand, there is increasing evidence that the severe, endogenous form of depression also depends on interpersonal factors (Beach et al. 1990, Mundt et al. 1996). In a pilot study with 38 patients, we found that in most cases depression could be considerably, very reliably and rapidly improved by social stress factor reduction (SFR) (Matakas 1995, Matakas et al. 1996). This paper reports on a controlled, randomised study which examined the efficacy of this method and on the clinical application of the SFR method.

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Social stress factor reduction
Patients and their families were allowed to meet only once a week for 15 to 30 minutes in the presence of the attending doctor. During these meetings, the patients were never at any time left alone with their families. Only current aspects of the treatment were discussed during these meetings; any reference to possible existing conflicts in the family or at the workplace was avoided. Apart from these meetings, patients received no visitors, had no telephone calls, received no mail and were not allowed to write any letters themselves. This strict isolation procedure was maintained for a maximum of six weeks and was generally relaxed step by step at the end of this period. First of all patients were allowed to use the telephone, and then they were allowed to receive visitors for a short period of time in the absence of staff. Within one to three weeks, contact was gradually increased to normal levels. This SFR program was discussed with the patients and their families beforehand, and was implemented only if bosides agreed. Care was taken during these discussions not to give families the impression that they were being held responsible for the patient's depression. They were told that under the SFR program the patient would be thinking about precisely those people who were important to him, but that it was important for his condition to be able to concentrate entirely on himself for a while. One patient's family was against the program, but the patient requested further treatment in line with the rules of the hospital. Since patient compliance was generally poor, patients in the controlled study were strictly monitored to ensure that they adhered to the SFR program. When this method is applied in normal clinical practice, such monitoring is impossible and is not even attempted.

Many patients initially reacted very negatively to the SFR program. They emphasised that contact with their families was the only thing left that could help them. These attitudes naturally changed as soon as the patients felt better.

STUDY CRITERIA AND Method

Patients with a physical disease (e.g. carcinoma, hyperthyroidism) and patients who were known to have a second relevant psychiatric disorder (e.g. addiction) were excluded from the study. The patients were assessed at weekly intervals according to the following scales: a test that measures global psychopathology according to the "Manual for the Assessment and Documentation of Psychopathology" (AMDP, Arbeitsgemeinschaft für Methodik und Dokumentation in der Psychiatrie 1997); two structured interviews for depression, sc. the Hamilton De-

pression Scale (HAMD, Hamilton 1980) and the Montgomery-Asberg Depression Scale (MADRS, Montgomery-Asberg 1979); and two self report instruments tests for depression, sc. the Depression Scale (DS, Zerssen et al. 1974) and the Beck Depression Inventory (Beck et al. 1979). Nonparametric methods were used for statistical evaluation (Mann-Whitney U test, two-tailed). The results were also computed as mean differences, using t-tests, but these results are not presented since they do not differ from the median calculations.

The patients

The study sample comprised 47 patients who were admitted to the hospital as in-patients between 1995 and 1998 for major depression (DSM III-R). The patients were selected at random. A second psychiatric diagnosis (schizophrenia, paranoia, severe addiction) was established in four patients during the treatment program. Two patients were transferred to another hospital within the first week. The SFR program could not be carried out with two patients for important family-related reasons. One of this patients should have continuous contact with a small child, the other had to be present in the family because of the death of a family member. The remaining 39 patients fulfilled six or more of the criteria for major depression according to the DSM III-R (median = 8). Personality disorders, axis II (DSM III-R), were not taken into account. Lots were drawn to divide the patients into two groups. The SFR program was immediately implemented with the patients in the study group. Control group patients were treated according to conventional methods for two to three weeks, after which the SFR program was also implemented with this group. Patient characteristics are summarised in Table 1. There were no statistically significant differences ($p>0.5$) between the study and control group in terms of sex, age, incidence of bipolar disease, previous depressive disease, symptoms of delusion and symptoms of melancholia.

The ward

The hospital in which this study was carried out is located in the centre of Cologne, Germany, and has three wards for in-patients and four wards for day care. All patients in the study were treated in a unit with 20 beds for acute cases. This ward is used for treating men and women with schizophrenia or depression and, in isolated cases, people suffering from personality disorders or alcoholism. The average length of stay here is around 30 days. The ward has a well-structured weekly program with numerous group events (ward meetings, art therapy, sociotherapy, sport, leisure activities). The patients are able to talk to the doctor on a daily basis. Families are usually called in either

TABLE 1: Clinical characteristics of patients

		SFR group (n = 19)	control group (n = 20)
men		8	6
women		12	14
age (yrs)	median	40	45
	range	20-64	23-59
1. manifestation of depression		8	7
bipolar type		5	3
melancholic type		18	20
psychotic symptoms (delusions)		8	8

once a week or every two weeks. Staff place a lot of emphasis on activating patients, fostering a friendly atmosphere and structuring life in the ward.

Medication

All patients received 75-150 mg amitryptiline and 4-8 mg perphenazine throughout the study period. Patients were also given benzodiazepine at short notice if they were otherwise unable to sleep. The neuroleptics were administered because many patients had pre-existing symptoms of delusion or developed such symptoms after admission. Other treatment methods, such as electric convulsive therapy, were not used.

RESULTS

Table 2 shows the test results at the beginning of the study and after one week. The table shows that after one week patients in the SFR group underwent a highly significant improvement at a level of 1 % for the BECK and DS scales and 1 %o for the remaining tests. The control group showed a significant difference only for the DS, HAMD and MADRS scales at a level of 5 %. With the exception of the DS scale, the difference between the SFR and control group was significant at a level of 1 % and 1 %o for HAMD. The difference between the SFR and control group was significant at a level of 0.1% for HAMD, 1% for MADRS, and 2% for AMDP, BECK, and DS.

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Table 2: Scores (medians, quartiles, and significance levels) on admission and after 1 week. p1 refers to the difference in scores on admission and after 1 week; pA refers to the difference in scores between SFR and control group.

			Admission			1 week					
		n	Q1	median	Q3	Q1	median	Q3	p1	pA	Z	U
AMDP	SFR	19	55	**65**	83	20	**37**	60	<0.001	0.016	33,7	105/2,4
	control	20	58	**72**	81	49	**57**	77	0.083		1,7	
Beck	SFR	19	24	**32**	41	5	**15**	31	0.002	0.013	3,0	67/2,5
	control	20	25	**30**	42	24	**27**	38	0.476		0,7	
DS	SFR	19	24	**30**	36	8	**15**	30	0.002	0.013	3,2	90/2,5
	control	20	26	**31**	37	22	**28**	36	0.031		2,2	
HAMD	SFR	19	26	**32**	35	11	**20**	26	<0.001	<0.001	3,7	69/3,4
	control	20	29	**35**	38	23	**32**	33	0.028		2,2	
MADRS	SFR	19	29	**36**	43	8	**20**	32	<0.001	0.003	3,8	85/3,0
	control	20	35	**38**	42	24	**33**	42	0.026		2,2	

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After two weeks (Table 3), seven patients had dropped out of the SFR group. These patients had improved so much that five left the hospital and the other two no longer wanted to participate in the SFR program. One patient dropped out of the control group. This patient had shown no improvement and were transferred to another hospital. The improvement in the SFR group was particularly pronounced for AMDP, HAMD and MADRS ($p1 \leq 0.001$). The control group also showed an improvement which was significant at a level of 1 % for AMDP and HAMD and 5 % for BECK and DS. The difference between the groups was significant at a level of 1 % for HAMD and MADRS and 5 % for AMDP, but not significant for BECK and DS.

The SFR program also proved successful for the patients in the control group when applied after two or three weeks. Accordingly, the SFR group and the control group were compared in terms of the time required until the results of at least three tests were at least 60 % lower than the starting values on admission. For the SFR group n was 19 and for the control group n was 19, too, because one patient left the hospital after a week with no improvement. For patients in the SFR group, the median time required to obtain the criterion for improvement was one week and the average 1.5 weeks. For the control group, the median was three weeks and the average 2.9 weeks ($p = 0.011$).

DISCUSSION

The significance of this study may be limited by the fact, that the person that carried out the tests with the patients generally knew whether or not they were in the SFR group or in the control group. It was thought that a strictly blind approach would be unfeasible, however, because a comprehensive insight into the patient was necessary for the implementation of the tests. The patients generally reported either that they were missing their families or that they had made a surprisingly quick recovery. In addition, the patients in the control group repeatedly inquired about the SFR program. Consequently, we decided to avoid a blind rating. This may be partly responsible for the difference between the self-assessment and third-party assessment. In their self-assessment, on the other hand, the patients seemed to be expressing their dissatisfaction at having undergone such a speedy and substantial improvement. It may be a paradox, but however much patients suffer because of their depression, they often have a subconscious interest in maintaining this state. Another difficulty with this study was patient selection. In order to preclude a systematic error, the patients had to be chosen at random. The choice of patients could not depend

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Table 3: Scores (medians, quartiles, and significance levels) on admission and after 2 weeks. p1 refers to the difference in scores on admission and after 2 weeks; pA refers to the difference in scores between SFR and control group.

		admission				2 weeks						
		n	Q1	median	Q3	Q1	median	Q3	p1	Z	pA	Z
AMDP	SFR	13	56	**70**	88	25	**33**	57	0.001	3,2	0.024	65/2,2,
	control	19	59	**73**	81	39	**51**	69	0.005	2,8		
BECK	SFR	13	22	**24**	38	7	**17**	30	0.018	2,4	0.280	68/1,1
	control	19	25	**30**	43	12	**25**	32	0.026	2,2		
DS	SFR	13	20	**25**	31	7	**16**	27	0.005	2,8	0.121	69/1,6
	control	19	26	**31**	38	12	**24**	31	0.016	2,4		
HAMD	SFR	13	26	**32**	36	12	**16**	24	0.002	3,1	0.003	47/2,9
	control	19	25	**35**	38	23	**27**	32	0.006	2,7		
MADRS	SFR	13	33	**37**	42	14	**16**	31	0.001	3,2	0.007	54/2,7
	control	19	35	**38**	42	23	**29**	37	0.001	3,2		

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on their consent. Moreover, the patients' consent was not obtained until after they had been selected, and in some cases patients and their families required considerable encouragement. Finally, the patients had to have a sufficiently severe form of depression.

The results of this study show that some or even many cases of severe and most severe depression can be improved in hospital if the patient has no contact with the people from his everyday life for a certain period of time. This effect can be observed within a few weeks. Depression recedes more quickly with than without this method. This applies to both unipolar and bipolar depression and to depression with and without psychotic symptoms. We have evidence that the effect is reproducible. Complete normalisation of the patients' psychic state was neither attempted nor investigated by this program. We also know nothing about the effect of this method on the long-term progression of the disorder. Most patients continue to be in good spirits from the completion of the SFR program until their discharge. Some patients, however, deteriorate each time they resume contact with their normal environment. We cannot tell from this study what the rate of therapeutic failure is, or whether any patients experience a deterioration as a result of the SFR program. We have observed both reactions in isolated cases outside the study. We have not tried to carry out the SFR program without the use of psychotropic drugs. Experience with the SFR program outside this study has produced some evidence that it does not work so well - or not at all in some cases - without this medication.

The results presented here confirm the results of our previous study with 38 patients (Matakas et al. 1996). In this first study, 77 % of patients with major depression showed a marked improvement within two weeks. The remaining 23 % recovered only slightly or not at all within this period. However, compliance with the SFR program was not monitored in this pilot study. In the study presented, however, measures were taken to ensure that patients did indeed comply with the SFR program.

The findings presented here have an adequate significance level. Assuming that the results are valid, this means that the improvement in the patients in the control group is at least partially due to the fact that they were removed from their normal social environment when they were admitted to the hospital. Hospital admission in itself entails a considerable change in the social situation of both patient and family. This would mean that many patients soon experience an improvement in their symptoms purely as a result of hospital admission, regardless of the therapy used. Looked at from this point of view, the SFR program is even more effective than demonstrable in this study because hospital treatment, by its very nature, is always a form of SFR. This

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would mean that the difference in test results between the control and SFR group involves a systematic error which makes the difference appear smaller than it really is. Moreover, the test results in the second week do not include the patients who had already left the hospital because of a sufficient improvement. This is another factor that makes the SFR program seem less effective than it really is. We have not systematically studied patients with dysthymia or reactive depression, or patients with depression as an expression of severe stress or an adjustment disorder.

The biggest impediment to the SFR program is resistance on the part of the patients and their families. In many cases outside this study we have observed patients calling their families in secret. Some patients have left the hospital or have been taken away by their families. Some patients have incited other patients to secretly deliver letters. Some have pretended that they wanted to call their lawyer or their family doctor and then called their family instead, even though they had previously given their consent. In general, patients did not admit to having broken the rules. Accordingly, if compliance cannot be safeguarded to a reasonable extent, staff cannot be sure that the SFR program is being adhered to. Experience shows that it only takes one telephone call - even if it is a short call - to destroy a whole week’s success.

The patient group in this study can be considered representative of hospitalised patients with major depression. Men accounted for around 33 % which seems to be usual (Merikangas et al. 1994, Tuma 1996). The (median) age was slightly lower, but the age bracket was virtually the same at 20 to 64 as reported byTuma 1996. First-time patients were more strongly represented at 36 % than according to Tuma, for example, who indicates 30 %. According to Tuma, the median duration of hospital treatment is 29 days. This is considerably shorter than our treatment period with a median of 50 days for patients with major depression. The reason for our

relatively long treatment period is that the treatment aimed not only to reduce symptoms but also to restore social competence in a second treatment phase.

This preliminary study of SFR cannot possibly aim to provide an explanation of the phenomenon. In this context, we simply refer readers to the ethological theory (cf. Eibl-Eibesfeldt 1970) and its application to the phenomenon of depression, for example by Price et al. (1994), and to the analytical theory by Jacobson (1971). We also refer to the fact that family therapy seems to be an effective form of therapy for depression (cf. Beach et al. 1990, Rapp and Wodarski 1997). We do not think that our results run counter to the hypothesis that a good

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social network protects against depression (Dalgaard et al. 1995). Rather, they mean that it may be necessary to distinguish between a "good" network and one likely to promote conflict (cf. Brown 1996). We would also like to refer to the findings of Keller and Shapiro (1981) and Keller et al. (1984), who confirm our findings to a certain extent. In a study with 97 patients with major depression, they found that after two years "married subjects had a greater probability of chronic outcome.

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