

# The key relative's impact on treatment and course of alcoholism

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Received February 3, 1992

**Summary.** One hundred alcoholics participated in a 6-week inpatient and a 6-week outpatient therapy programme and a 6-month and 18-month follow-up. Major goals of the study were a descriptive analysis of the course of illness over time, the evaluation of the effects of therapy in general and concerning the specific effects of additional (A) systematic inclusion of the key relative versus (B) systematic involvement in self-help, and identification of predictors for relapse. While therapy as such was quite effective and resulted in significant changes in symptomatology and the scores on personality scales, the additional involvement of the key relative showed no substantial additional treatment effects. Partnership interactions showed a deterioration during therapy, with temporary increased frictions. Based on conservative calculations, 40% of all patients remained abstinent until the 6-month follow-up and 30% until the 18-month follow-up.

**Key words:** Alcoholism – Treatment – Role of relative in therapy – Course of illness – Follow-up

## Introduction

Alcohol dependency is a mental disorder with a high prevalence (Regier et al. 1988; Robins et al. 1984) and a relatively high rate of relapse and chronicity (for a review, see Emrick 1974; Costello et al. 1977; Miller and Hester 1980; Hoellen and Hoellen 1985). It has been suggested that family conflict and problems in partnership are associated with relapse in alcoholism (Kaufman and Pattison 1982; Moos and Moos 1984; McCrady 1989; O'Farrell and Cutter 1979; O'Farrell et al. 1992). While much has been theorized about this issue, relatively little empirical research has been done. The aims of the present study were a descriptive analysis of the course of alcoholism over time, the evaluation of the effects of therapy in general and concerning the specific effects of additional (A) systematic inclusion of the key relative in therapy versus

(B) systematic involvement in a self-help group and the identification of prognostic factors of relapse.

## Subjects and methods

### Subjects

The patient sample consisted of 100 male and female patients, aged 20–60 years with the diagnosis of alcohol addiction (ICD-9 No. 303.0) who took part in a longitudinal study. Patients were consecutively admitted to a 6-week inpatient group therapy programme at the Department of Psychiatry of the University of Munich. Data were obtained at five points of time: on admission, at the end of the 6-week inpatient treatment, at the end of the 6-week outpatient treatment, at a 6-month follow-up, at an 18-month follow-up. Of the sample, 42% were women and 58% were men. The mean age of the patients was 38.0, SD 8.3 years. Patients were accepted for the study only if he or she had a spouse or close relative<sup>†</sup> who could possibly be included in therapy. At the time of the study 48% of the patients were married, 18% were divorced, 27% were unmarried and 6% lived separated or were widowed. Data were obtained on all patients at admission, on 95 patients (95%) after discharge from inpatient therapy, on 92 patients (92%) at the end of outpatient treatment, on 91 patients (91%) at the 6-month follow-up, and on 90 patients (90%) at the 18-month follow-up.

### Design

The design of the study was unifactorial, multivariate and multirepetitive (Lienert 1978). All patients received a standard intensive 6-week inpatient treatment with a behavioural focus (see Fichter and Postpischil 1983; Fichter et al. 1983; Fichter and Frick 1992). This basic 6-week inpatient treatment consisted of a conflict-centered group therapy of 90 min duration three times per week, a 90-min group for training in social skills twice weekly, autogenic training sessions five times per week, occupational therapy four times per week, an alcoholism information group once weekly and a 90-min physical exercise group

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twice weekly. In addition to this standard basic treatment each treatment group received either the additional treatment component A (focus on significant other, excluding the patient) or treatment component B (focus on self-help excluding the relative). Of the 16 consecutive inpatient groups, in which the 100 patients were treated, 7 groups were randomly allocated to condition A (focus on key relative) and 9 groups were randomly allocated to the additional treatment component B (focus on self-help). Neither the patients' therapists nor the person who recruited the groups had any knowledge of the result of the random allocation of the group before the first day of treatment. All patients were offered a weekly meeting for 6 weeks after discharge from inpatient therapy with the same patient group and a clinical psychologist of the therapy team.

Subgroups A and B did not differ from each other with respect to age (37.5, SD 8.2 vs. 38.4, SD 8.4 years), other sociodemographic variables, or concerning drinking characteristics before treatment.

In the *additional treatment component A (systematic inclusion of the key relative)* the key relative was identified for each patient. During inpatient treatment the key relative was offered weekly participation in a group together with the key relatives of the other patients. The aims of this group for relatives were to supply information on alcohol dependency and consequences, to train problem-serving techniques, to deal with dysfunctional attitudes and behaviours of the relative with respect to the patient's drinking behaviour, to teach skills for direct communication, to reduce external (key relative's) control over the patient and to encourage alcohol abstinence for the key relative if necessary. Frequent themes of this group for relatives were: denial of alcoholism and of problems, coercing the other to take the first step, resistance of the patient or his/her partner to actively take part in therapy, ambivalence with respect to partnership, expression of feelings of disappointment, bitterness, hostility and guilt towards the patient, anxieties concerning future relapses of the patient, difficulties in expressing positive and negative feelings and dealing with problems in the future without the help of the hospital and the therapist.

In addition to these groups for significant others, family sessions were conducted, in which the therapist, the patient, his or her key relative and possibly other relatives participated. The focus of these family sessions was on increasing communicative skills, enhancing the direct expression of one's own needs and feelings towards the other and reinforcing joint recreational activities. Homework assignments were given.

*Additional treatment component B (focus on self-help).* Patients assigned to this treatment condition participated in an additional 90-min group once a week during inpatient therapy in which self-help initiatives were encouraged. The time (numbers of hours) a patient received therapy was held constant between the additional treatment component A and B. Thus, the total time for group-for-relatives and for family sessions in component A and the time in the self-help group in component

B was the same. The key relative was in almost all instances (93 of 100 cases) the patient's partner.

The assessment of the drinking status was based on the report of the patient in a personal interview and in self-report questionnaires, on the report of the significant other (relative) in a personal interview and on the expert judgement of the interviewer conducting the follow-up interviews. A patient was defined as abstinent when all sources of information were in agreement that the patient had not consumed alcohol in a defined period of time (conservative estimate). When information was present only from a patient or his or her relative, this information was counted. When patient and relative could not be reached or did not agree to participate in the follow-up, the patient's drinking status was counted as a relapse.

### *Instruments*

The Johns Hopkins Symptom Check List (SCL-90) (Derogatis et al. 1973) – a 90-item self-rating scale measuring nine dimensions of psychopathology – was administered to each patient as well as to his or her relative on admission and at the 6- and 18-month follow-up. Respondents indicated to what extent a symptom was present, using a five-point scale from "0" (= not at all) to "4" (= extremely).

Items of the Complaint List (CL) (von Zerssen 1976) were rated by each patient and key relative on admission and at the 6- and 18-month follow-up. Items were rated on a scale ranging from "0" (not at all) to "3" (severe).

The Munich Alcoholism Test (MALT) (Feuerlein et al. 1979) – a combined self- and expert-rating scale – was administered to the patient on admission.

The Parental Bonding Instrument (PBI) developed by Parker (1983) for the assessment of perceived parental care and overprotection (retrospectively) was administered to the patients on admission.

The Camberwell Family Interview (CFI) (Brown and Rutter 1966; Vaughn and Leff 1976) was performed by a trained interviewer with the key relative at the time of the patient's inpatient admission. For practical reasons (interviewer training), the CFI was omitted in the first 29 cases and assessed in the remaining consecutive 71 cases. On the basis of the CFI results, the key relatives were divided into two groups [high versus low expressed emotion (EE)]. In addition, cluster and factor analytic methods were used; they identified the two dimensions "positive emotions towards the patient" (Cronbach's  $\alpha = 0.55$ ) and "negative emotions towards the patient" (Cronbach's  $\alpha = 0.77$ ). Interviews were taped and rated by a trained rater, who was blind to the treatment condition.

A modified and extended version of the 11-item Patient Rejection Scale (PRS) developed by Kreisman et al. (1979) was used as a self-rating scale to assess the relatives' attitudes towards the patient and perception of family climate. Factor and cluster analyses revealed two main dimensions of the modified PRS: "positive attitude towards the patient" (Cronbach's  $\alpha = 0.86$ ) and "negative attitude towards the patient" (Cronbach's

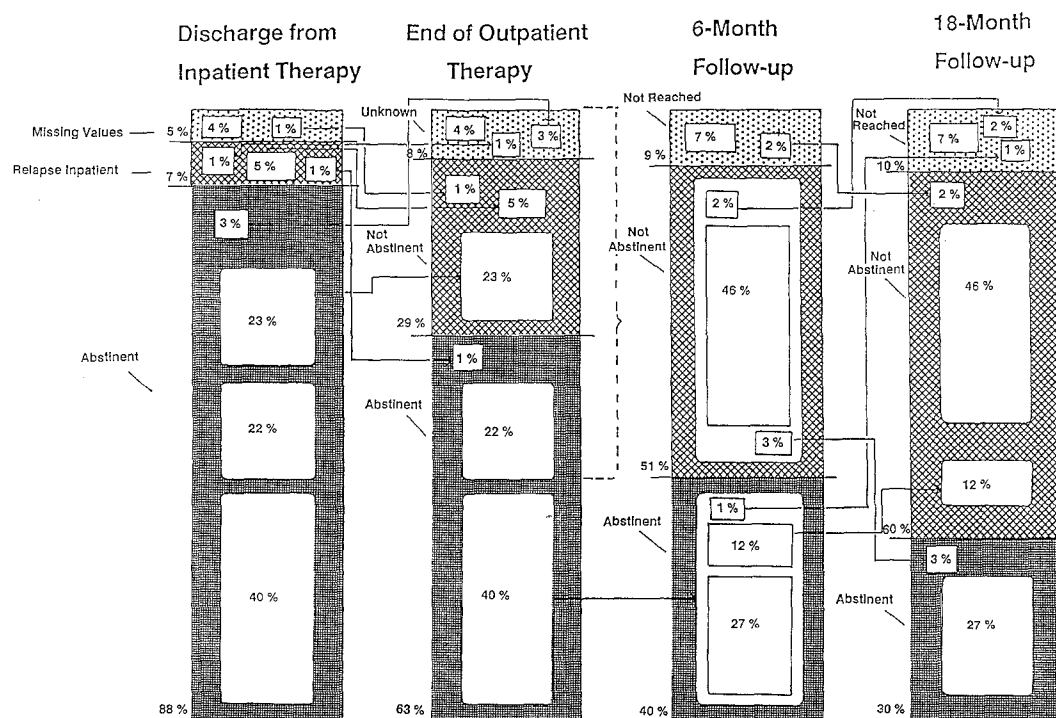


Fig. 1. Total alcohol abstinence over time

alpha = 0.90). The scale was administered to the key relative at the time of the patient's admission for inpatient treatment, at the end of 6-week outpatient treatment, at 6-month follow-up and at the 18-month follow-up.

The 30-item Self-rating of Partnership Scale (SPS) developed by Hahlweg (1979) was used to measure interaction in the partnership at the same four points of time at which the PRS was administered. It covers joint activities, styles of communication, strategies to solve conflicts and the expression of emotions, affection and tenderness. Dimensional analyses revealed the three factors: quarrelling, expression of affection and tenderness and common activities and communication with a high internal consistency (Cronbach's alpha > 0.90).

## Results

Based on our conservative definition of abstinence from alcohol, 40% of the patients had been abstinent over the total 6-month period and 30% had been abstinent over the total 18-month follow-up period. Details concerning abstinence and relapse over time are shown in Fig. 1. Data on drinking status were obtained in 74 cases from the patient as well as the relative.

At the 6-month follow-up patient and relative were concordant in what they reported concerning the patient's drinking status (34 patients abstinent, 24 patients not abstinent) in 58 of 74 cases. In 7 cases, the patient claimed to have been abstinent, while the relative did not confirm this. On the other hand, 9 patients admitted that he or she had not been abstinent, while the relative said the patient was abstinent. Sixteen patients and 19

relatives could not be reached at the 6-month follow-up. At the 18-month follow-up both patient and relative had been abstinent, and in 33 cases that the patient had not been abstinent during that time. In 4 cases, the patient claimed abstinence, while the relative reported the patient drinking, and in 4 cases the patient admitted that he or she was not abstinent, while the relative reported that he or she was. At the 18-month follow-up, 17 patients and 29 relatives could not be reached. Thus, contrary to some other reports (Midanik 1988), there were marked discrepancies concerning drinking status of the patient between the sources of information.

Table 1 shows the abstinence rates separately for patients who participated in the additional treatment component A (systematic inclusion of the relative) or treatment component B (focus on self-help). At discharge from inpatient care group A had a higher abstinence rate (95.9%) than group B (80.4%) ( $\chi^2 = 5.7$ ;  $df = 1$ ;  $P < 0.05$ ). At the end of the 6-week outpatient treatment there was only a trend for higher abstinence rates in group A as compared with group B, this difference was not significant ( $\chi^2 = 0.78$ ;  $df = 1$ ; ns). Log-linear models were calculated and showed that the treatment component A as well as female sex reduced the risk of a relapse during inpatient therapy. At the end of inpatient therapy log-linear modelling revealed that neither sex nor therapy component A had significant influence on the abstinence rate. When drinking status was considered at the end of inpatient therapy, there was no interaction between therapy component (A and B) with sex or with relapse during inpatient therapy. At the 6-month follow-up the abstinence rate was 39.2% for group A and 40.8% for group B ( $\chi^2 = 0.03$ ;  $df = 1$ ; ns). At the 18-month follow-up the abstinence rate was 28.6%

**Table 1.** Analysis of drinking status by treatment condition (A vs. B)

Time of evaluation	Number of patients completely abstaining from alcohol				Log-linear analysis of drinking status			
	Total sample <i>n</i> = %	Group A: inclusion of relative <i>n</i> (%)	Group B: focus on self help <i>n</i> (%)	Pearson Chi-Square <i>df</i> = 1	Fitted effects:	Fisher's $L^2$	( <i>df</i> )	<i>P</i>
Discharge from inpatient therapy	88 (88%)	47 (95.9%)	41 (80.4%)	5.7 $P < 0.05$	$S \times T, D$ $T \times D, S \times D$	0.77	(5)	0.39
Discharge from outpatient therapy	63 (63%)	33 (67.3)	30 (58.8%)	0.78 $P > 0.30$	$S \times T, D$ (null model)	4.04	(3)	0.26
6-month follow-up	40 (40%)	19 (39.2%)	21 (40.8%)	0.03 $P > 0.85$	$S \times T \times A, D$ (null model)	4.80	(7)	0.68
18-month follow-up	30 (30%)	14 (28.6%)	16 (31.4%)	0.09 $P > 0.75$	Not evaluated because of low cell frequency			

Explanation of hierarchical effects in log-linear analysis:

(logit null model: fitted marginals)

$S \times T$  = interaction sex  $\times$  treatment including marginals sex, treatment

$S \times T \times A$  = interaction sex  $\times$  treatment  $\times$  age including first-order interactions and marginals

$D$  = marginal effect for drinking status

(influence factors for logit analysis)

$T \times D$  = main effect of treatment on drinking status

$S \times D$  = main effect of sex on drinking status

for group A and 31.4% for group B ( $\chi^2 = 0.09$ ;  $df = 1$ ;  $P > 0.75$ ). Neither age, sex, therapy component A versus B nor any interactions of these variables had a significant impact on abstinence at the 6-month follow-up.

In the 6-month interval after discharge from inpatient treatment, the patients participating in therapy component A (focus on key relative) consulted a family physician or an alcoholism counselling service significantly more often. During the 18-month follow-up interval, patients who participated in therapy component B (focus on self-help) were significantly more often and longer in inpatient treatment because of alcohol problems. This might be seen as a positive long-term effect of the therapy component A by inducing outpatient consultations following inpatient treatment in time, thus preventing more severe relapse.

Predictors of relapse were identified using stepwise discriminant function analyses. The rank order of the best predictor for relapse in the first 6-month post-treatment was: higher degree of medical and/or psychiatric symptomatology, not living with an adolescent offspring, prediction of a bad prognosis as rated by the therapist at the end of inpatient treatment, low number of friends, low number of the patient's social contacts, unfavourable memory of family climate in the family of origin during childhood of the patient as measured in the PBI assessed on admission and lack of regular post-treatment contacts with self-help groups. Thus, medical and general psychiatric status on admission was a more powerful predictor in relapse than lack of social support; however, the influence of both categories was significant. Cross-tabulations of results according to real and predicted drinking status revealed that 76% were correctly classified for the 6-month follow-up period and 70.5% were correctly classified for the 18-month follow-up period, on the basis of

the multivariate discriminant function model. The rank order of the best predictors for relapse for the 18-month period was: bad prognosis as predicted intuitively by the therapist, lack of compliance and confidence (self-rating), not living with an adolescent offspring, infrequent post-treatment contacts with self-help groups and unfavourable memory concerning parental family climate (PBI).

The key relatives of 71 patients were assessed by the CFI: 31 patients of that subgroup were female and 40 were male. In the CFI subscale "negative emotions towards the patient" the mean was 10.8 points for relatives of female patients and 8.6 points for relatives of male patients (ANOVA;  $F = 3.95$ ;  $df = 1.7$ ;  $P < 0.05$ ). This result is in accordance with our results concerning the modified PRS, which also showed higher values for negative critique for female patients as rated by the key relative at follow-up. Thus, relatives were less tolerant towards drinking, when the patient was of female rather than male sex. There was, however, no difference in the treatment outcome (drinking status) between male and female patients.

To identify relevant predictors for the relative's "negative emotions towards the patient" (as measured by the CFI subscale) we performed multiple linear regression analyses. The following variables showed a significant impact on the relative's criticism: The subscale "aggression and hostility" of the SCL-90 (partial correlation = 0.43;  $t = 3.8$ ;  $P < 0.001$ ), the PRS subscale "negative attitude towards patient" (partial correlation = 0.34;  $t = 3.0$ ;  $P < 0.01$ ) and the subscale "communication" of the SPS (partial correlation = 0.28;  $t = 2.5$ ;  $P < 0.05$ ). These three predictors resulted in a multiple  $R$  of 0.62 for the criterion CFI subscale "negative emotions towards the patient". These variables thus accounted for 35% of the variance of the CFI subscale.

**Table 2.** Patient rejection subscales by treatment and time

Time	PRS subscale	Treatment				Total		
		A		B		Mean	(SD)	
		Inclusion of relative		Focus on self-help				
		Mean	(SD)	N	Mean	(SD)	N	
Admission	Negative attitude	12.1	(7.8)	43	12.9	(8.2)	40	12.5 (7.8)
	Positive attitude	17.6	(6.1)	43	17.0	(5.0)	40	17.3 (5.5)
Discharge from outpatient treatment	Negative attitude	8.2	(7.1)	36	8.6	(6.6)	32	8.4 (6.8)
	Positive attitude	18.6	(5.5)	36	18.6	(5.8)	32	18.6 (5.6)
6-month follow-up	Negative attitude	8.1	(6.9)	32	11.5	(9.1)	32	9.7 (8.2)
	Positive attitude	18.1	(5.8)	33	16.8	(6.3)	32	17.5 (6.0)
18 month follow-up	Negative attitude	8.6	(7.4)	25	9.2	(8.0)	29	8.9 (7.7)
	Positive attitude	16.4	(5.9)	25	17.5	(6.0)	29	17.0 (5.9)

Note: Descriptive statistics of this table refer to all documented respondents. Statistical analyses were computed on evaluable "significant others" which answered at all respective points of time of the concerned (M)ANOVA model

**Table 3.** Results (mean and SD) of two main subscales of the self-rating of partnership scale (SPS) by treatment and time

Time	Respondent	Additional treatment component						Total (A + B)	
		A			B			Mean	(SD)
		Inclusion of relative		N	Focus on self-help		Mean		
Mean	(SD)	N	Mean		(SD)	N			
<i>a) Scale quarreling behavior</i>									
Admission	Patient	24.9	(33.1)	49	22.8	(30.9)	51	23.8	(31.9)
	Partner	26.1	(34.8)	44	29.2	(35.7)	49	27.7	(35.1)
Discharge from outpatient treatment	Patient	22.9	(34.4)	42	25.6	(34.8)	39	24.2	(34.4)
	Partner	27.5	(37.6)	38	29.0	(39.1)	34	28.2	(38.1)
6-month follow-up	Patient	7.1	(6.2)	24	8.9	(7.1)	31	8.1	(6.7)
	Partner	6.2	(6.9)	25	8.5	(6.5)	27	7.4	(6.7)
18 month follow-up	Patient	11.3	(3.8)	23	11.0	(4.4)	26	11.1	(4.1)
	Partner	9.6	(5.1)	21	10.9	(5.3)	25	10.3	(5.2)
<i>b) Scale communication</i>									
Admission	Patient	30.6	(30.4)	49	29.7	(28.3)	51	30.7	(29.2)
	Partner	30.6	(32.7)	44	33.4	(33.7)	49	32.1	(33.1)
Discharge from outpatient treatment	Patient	32.3	(30.2)	42	32.9	(31.7)	39	32.6	(30.8)
	Partner	34.6	(33.9)	38	38.1	(34.4)	34	36.2	(33.9)
6-month follow-up	Patient	18.7	(5.9)	24	18.5	(7.8)	31	18.6	(6.9)
	Partner	18.0	(7.1)	25	17.4	(8.3)	27	17.7	(7.7)
18 month follow-up	Patient	7.0	(2.6)	23	8.1	(3.2)	26	7.6	(2.9)
	Partner	6.9	(2.9)	21	8.0	(3.2)	25	7.5	(3.1)

Note: Descriptive statistics of this table refer to all documented respondents. Statistical analyses were computed on pairwise evaluable couples which answered to all respective points of time of the concerning MANOVA model

Table 2 shows mean and standard deviations for the two subscales of the PRS ("positive" and "negative attitude towards the patient") for four points of time longitudinally. Statistical analyses were made of the data of the key relatives who had responded at all respective points of time in the concerning (M)ANOVA model. Since the modified PRS Subscales "positive" and "negative attitude towards the patient" were not independent

of each other, we calculated a multiple analysis of variance (MANOVA) to clarify the possible influences of the relative's attitude towards the patient. Independent factors in this model were the sex of the patient, the type of additional therapy (A versus B) as between-subjects factors and the four repetitions of measurement over four points of time as within-subjects factors. Differences in treatment and the sex of the patient had no di-

rect effect on the ratings in the modified PRS (ns). There were no interactions between the type of the additional therapy component A versus B and sex. The time of assessment showed a significant association with the results of the modified PRS (approx.  $F = 5.22$ ;  $df = 6, 19$ ;  $P < 0.001$ ). With elapsing time, the relative's "negative attitude towards the patient" diminished. Sex differences in the relative's "negative attitude towards the patient" over time were statistically significant (interaction "sex  $\times$  time": univariate  $F$  for scale "negative attitude" = 12.8;  $df = 1, 32$ ;  $P < 0.001$ ). Over the course of the study relatives of male patients showed a reduction in the PRS subscale "negative attitude towards the patient", while relatives of female patients showed only a minimal reduction during the time of therapy with subsequent increase in their "negative attitude towards the patient" at the 6- and 18-month follow-up. Since there was no statistically significant difference in the outcome with respect to drinking behaviour between male and female patients, this appears to be the result of sex-specific differences in tolerating the patient's symptoms and behaviour.

Table 3 shows results (mean and SD) of two main subscales of the SPS for patient and partner by treatment (A versus B) and four points of time. The mean ratings of the patients' as well as of the spouses' in the SPS and its subscales obtained on admission were outside the 95% confidence intervals when compared with norms obtained from middle-class couples (Hahlweg, 1979). In the SPS-subscales "quarrelling behaviour" and "communication", the spouses showed even more extreme values than the patients. According to the results of the SPS, there was more quarrelling behaviour and less expression of affection and tenderness and more insufficient communication in the partnership of alcoholic patients as compared with controls. These results point to the importance of family interaction as a focus of therapy in alcoholics. Separate MANOVAs were calculated for the SPS total score and all SPS subscales as dependent variables, the type of the additional therapy component (A versus B) as between-subjects factor and time (= repeated measurement factor) and couple (patient and relative) as within-subjects factors. The major result of these analyses indicated a deterioration in the partnership interaction after inpatient therapy. This deterioration was observed independently of the type of additional therapy component. Apparently, inpatient therapy with alcoholics, focusing on social skills and interpersonal communication, may, at least temporarily, induce negative changes in partnership interaction.

## Discussion

Descriptive analyses of the course of illness from admission to the 18-month follow-up in our sample of 100 patients undergoing a combined inpatient and outpatient treatment showed that changes during therapy were effective in the short term. The treatment resulted in significant changes in symptomatology, personality scales (FPI) and partnership interactions. However, conservative calculations of abstinence rates based on the analy-

ses of the data obtained from the patient and the relative showed a fairly high rate of relapse. Over the first 6-month period after treatment 40% of the patients were abstinent throughout (complete abstinence). Data obtained at the 18-month follow-up showed that over this longer time period only 30% had remained completely abstinent. In a recent study reported by Shaw et al. (1990), the rate for abstinence or drinking in a controlled fashion during the first 6 months following a 1-month residential programme was only 37% ( $N = 112$ ). Results of a large prospective multicentre study of 1410 alcoholics (Feuerlein and Küfner 1989) reported that 53% of the patients remained abstinent, 8.5% improved and 38% did not improve during the 18 months following inpatient treatment. In the 4-year follow-up period 46% remained abstinent, 12% improved and 42% did not improve. Only 3% of their patients succeeded in maintaining controlled drinking. Inpatient treatment in this study also resulted in a reduction sick leave and inpatient treatment during an 18-month follow-up period. On the other hand, Booth et al. (1990) reported that alcohol-related hospitalisations peaked in the year after inpatient treatment.

While therapy as such was shown to be effective, the additional therapy components [involvement of key relative in therapy (A) versus focus on self-help (B)] showed only limited differential effects on outcome over the 6- and 18-months follow-up period. Short-term differential therapy effects were seen concerning the subscale "communication" in the SPS. Multivariate analyses showed a significant deterioration of partnership interaction after in- and outpatient therapy. This effect generally appeared in both treatment groups (A and B). It is likely that patients may have tested their knowledge in social skills freshly acquired during therapy with their close relatives and this may have led to temporary frictions and problems in interaction. The fact that patients participating in therapy component A had significantly fewer and shorter inpatient treatments in the 18-month follow-up period may indicate a long-term positive effect of this treatment component. Inclusion of the key relative may have resulted in timely outpatient consultations after discharge from inpatient treatment; this may have prevented more severe relapses in the longer run.

However, our data generally do not give much support to the hypothesis that including the key relative in therapy leads to better long-term results concerning drinking status. On the other hand, inclusion of family members is widely practiced in treatment programmes for alcoholics. There is also some limited empirical evidence concerning its efficacy (Azrin et al. 1982; McCrady et al. 1986; McCrady 1989). O'Farrell et al. (1985) compared a behavioural marital therapy group with an interactional marital therapy group and a control group receiving no partner therapy; both therapy groups showed significant improvement, while this was not the case for the control group; in addition, the behavioural marital therapy group also showed improvement in some variables such as increase in positive communication, interaction and stability of the partnership. There was, however, a high attrition rate of 44.4% in this study. In a 2-year

follow-up of this sample (O'Farrell et al. 1992), behavioural marital therapy and interactional couples therapy did not differ with respect to drinking behaviour of the patient or marital adjustment; the short-term results favouring behavioural marital therapy diminished over the time of follow-up. In another study on male alcoholics, O'Farrell and Birchler (1985) could not confirm hypotheses concerning specific styles of interaction between alcoholics and their spouses (struggles for power, patterns of female dominance, avoidance of responsibility by the patient and dysfunctional interpersonal perception by the spouse). McNabb et al. (1989) demonstrated a positive effect of the spouses 'or significant others' involvement in the treatment of alcoholism concerning abstinence at least over a period of 6 months. Bowers and Al-Redha (1990) reported that results of a standard individual therapy as compared with a couple group therapy did not significantly differ in any measures at the termination of therapy (as was the case in our study); the couple group therapy condition, however, resulted in lower alcohol consumption than the standard treatment group at 6-month follow-up; there was a trend for patients in the couple treatment condition to be drinking less than patients in the standard condition at 1-year follow-up. The authors also reported a trend for the jointly treated couples to report better marital adjustment at 6-month follow-up as compared to patients in the standard treatment. Monti et al. (1990) compared a communication skills training group (CST), a communication skills training group with family participation (CSTF) and a cognitive behavioural mood management training group (CBMMT) in 69 male alcoholics. Patients who received CST or CSTF drank significantly less alcohol during the 6-month follow-up as compared to patients in the CBMMT condition. The groups, however, did not differ in abstinence rates or latency to relapse and they all improved in social skills and in psychopathology.

Stepwise discriminant function analyses revealed the following main predictors for relapse: higher degree of somatic and/or psychiatric symptomatology, not living with an adolescent offspring, intuitive prediction of bad prognoses by the therapist at the end of inpatient treatment and a low number of friends and fewer social contacts.

Reasons for the lack of more powerful effects of the additional treatment component A in our study could be: 1.) Insufficient statistical power to detect differences because of a limited sample size. 2.) The basic treatment which both groups A and B received was by far the major part of therapy as far as time and effort were concerned. Therefore, an additional component (A versus B) may not have a true change to show its possible efficacy. 3.) Quite a few of the key relatives included in therapy component A showed resistance towards participation in groups for relatives and we may not have succeeded in overcoming this resistance as effectively as we would have liked. 4.) Our "control group" focusing on self-help may have been more effective than expected.

Concerning the effect of family climate, univariate statistics did not reveal any significant prediction of relapse in alcoholics on the basis of the original scales of

the CFI. However, results of a Cox regression analysis on the endpoint measure "time to relapse" did show that there was predictive value of critical comments as measured in the CFI concerning relapse in alcoholics. The modified PRS, the type of additional therapy (A versus B) and sex did not predict relapse on the basis of this model (unpublished data). Thus, the number of critical comments of the key relative appears to lead to a statistically significant acceleration or deceleration of the "natural course" of alcoholism.

Based on these results, the evaluation of the impact of key relatives on treatment and course of alcoholism generally deserves further scientific exploration.

*Acknowledgements.* We thank Dr. Siegfried Weyerer for rating the CFI tapes. Maria Kurz-Adam, Felicitas Postpischil, Dr. Johannes Wissmann, Fides Buchroiter, Michael Gottschlich and Karlmann Timm have been very constructive and helpful in carrying out the follow-up study. This research was supported by grant No. 82.011.2 of the Wilhelm-Sander-Stiftung.

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