

Effectiveness of a psychoeducational intervention for families of patients with schizophrenia: preliminary results of a study funded by the European Commission

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In spite of their proven efficacy, psychoeducational interventions for families of patients with schizophrenia are not being commonly applied in clinical practice. In this report, we present the preliminary results of a one-year follow-up study on the implementation and effectiveness of a psychoeducational family intervention in six European countries. Forty-eight professionals were involved in the study and provided the intervention for one year to 55 families of patients with schizophrenia. During the implementation period, the professionals reported significant organisational difficulties in the provision of the intervention, but acknowledged an improvement of their relationships with users and their families. At follow-up assessment, statistically significant improvements were found in patients' symptoms and social functioning as well as in relatives' burden, coping strategies and social resources.

Key words: Psychoeducational intervention, effectiveness, implementation, staff training, family burden, schizophrenia

Psychoeducational interventions for families of patients with schizophrenia aim to: a) provide the family with information about the patient's disorder and its treatments; b) improve communication patterns within the family; c) enhance family's problem solving skills; d) improve relatives' coping strategies; g) encourage relatives' involvement in social activities outside the family.

Since the 1980s, several studies have demonstrated the efficacy of these interventions. In patients whose families received them, the relapse rate at one year ranged from 6 to 12%, compared with 41 to 53% in routine management care groups. At two years, the relapse rates were 17 to 40% and 66 to 83%, respectively (see 1 for a review). Recent meta-analyses confirmed that family interventions, compared with routine case management, reduce patients' relapse rate fourfold at one year, and twofold in the subsequent year (2,3). In addition, family interventions have been found to improve patients' compliance to antipsychotic drug treatments, and to reduce the overall economic costs of care (4).

In spite of the evidence of their efficacy, psychoeducational family interventions are not commonly applied in clinical practice. In a study carried out in several European countries, the proportion of families who had ever received a psychoeducational intervention ranged from 0 to 15% (5). Studies which have attempted to introduce these interventions into routine clinical settings reported that only 7 to 27% of trained staff put the skills learnt into practice (6), and that the average number of families seen by each therapist in the year after the training ranged from

1.4 to 1.7 (7). One of the factors influencing the dissemination of these interventions in mental health services has been found to be the availability of training courses and supervision for the staff (6-10).

In this report, we present the preliminary data of a study on the implementation and effectiveness of a standard psychoeducational family intervention in six European countries. The study, funded by the European Commission within the framework of the 5th Programme for Research and Technical Development, aimed to explore: a) the possibility to provide psychoeducational intervention for schizophrenia, in routine settings, by staff who had received a structured training and supervision in its use; b) the difficulties and benefits experienced by the staff in the implementation of the intervention; c) the impact of the intervention on patients' clinical status and social functioning, and on relatives' burden, coping strategies and social network.

METHODS

The study was carried out at the Departments of Psychiatry of the Universities of Naples (Italy), Athens (Greece), Lisbon (Portugal), Granada (Spain) and Dresden (Germany), and at the Birmingham and Solihull Mental Health Trust (UK). Each centre selected four mental health services, in which two professionals were trained in the psychoeducational family intervention developed by Falloon et al (11). This is based on the application of cognitive-behavioural techniques to the family context (including the patient),

and consists of the following components: a) assessment of individual and family needs; b) informative sessions on the patient's mental disorder and its treatments; c) communication skills training; d) problem solving skills training to deal with daily problems and set individual and family goals.

The professionals attended a basic course (40 hours) in which they were trained in the intervention by means of guidelines, demonstrative audios, scenarios and role plays. These materials, specifically developed in the preliminary phase of the project, were adapted to the national context by researchers of the centres. The professionals were then asked to implement the intervention in their services with relatives of patients with schizophrenia for one year. The only inclusion criterion for relatives was that they lived with the patient in the same house, or had spent at least fifteen hours per week at face to face contact with the patient continuously for the last two months.

During the family work period, the professionals received supervision meetings biweekly for two months and monthly for four months. A further supervision meeting was held one year after the completion of the basic course. In each supervision meeting, implementation and clinical problems occurring in family work were carefully reviewed. At the 1st, 3rd, 5th and 9th supervision meetings (respectively, two weeks, six weeks, three months and one year after the completion of the basic course), the difficulties and benefits experienced by the staff in the implementation of the intervention were recorded by the Family Intervention Schedule (FIS).

At baseline and at 1 year after the start of the intervention, the clinical status and social functioning of recruited patients were assessed by the Brief Psychiatric Rating Scale (BPRS, 12) and the Disability Assessment Schedule (DAS, 13). At the same time, the recruited relatives were asked to fill in the Family Problems Questionnaire (FPQ, 5), the Family Coping Questionnaire (FCQ, 5), and the Social Network Questionnaire (SNQ, 5). Evaluations were performed by researchers of the centers who had received a formal training in the use of the instruments.

The FIS is a 50-item self-administered instrument collecting information on: a) the families to which the intervention has been proposed; b) the clinical and organisational difficulties and benefits experienced by the staff in the provision of the intervention. The FPQ is a 29-item self-administered questionnaire exploring the relative's objective and subjective burden, level of available social and professional support, and attitudes toward the patient. The FCQ is a 34-item self-administered questionnaire, exploring emotion-focused and problem-oriented strategies adopted by the relative to deal with the patient's symptoms and disturbing behaviours. The SNQ is a 15-item self-administered questionnaire measuring the quality and frequency of respondents' social contacts, and the level of available practical and psychological social support. Data

on the psychometric properties of the FPQ, FCQ and SNQ are reported elsewhere (5).

The Friedman test was used to assess whether the difficulties and benefits reported by the professionals in the provision of the family intervention showed any significant change from the 1st to the 3rd, 5th and 9th supervision meeting. The ANOVA test was used to compare the patients' clinical status and social functioning, as well as the relatives' burden, coping strategies and social network, at the one year follow-up vs. baseline.

RESULTS

All the 48 professionals who were involved in the project completed the basic training course. 31% of them were psychiatrists, 15% clinical psychologists, 15% social workers, 2% occupational therapists, 29% nurses, 8% other professionals. 42% of them were male; their mean age was 37.3 ± 5.8 years.

The most frequent difficulties in the implementation of the intervention reported by the professionals included work overload, the difficulty to integrate family work with other responsibilities, and the poor allowance of time from the service to run the intervention (Table 1). Although a decrease in the organisational difficulties was observed over time, they were still substantial at the one year assessment.

The difficulties related to the approach per se decreased over time. In particular, problems in the identification of families suitable for the intervention were reported by 42% of professionals at the first supervision meeting compared to 15% at the ninth one, and a lack of confidence with behavioural techniques by 23% of them at the first supervision compared to 6% at the fifth one (Table 1).

At the first supervision meeting, the professionals reported that they had implemented the family intervention at users' home in 30% of the cases. This percentage increased to 42% at the third supervision meeting, but decreased to 35% and 12%, respectively, at the fifth and ninth meeting.

The benefits most frequently reported by the professionals in the implementation of the intervention in their clinical settings concerned their relationships with the patients and their families. Clinical results were acknowledged by 8% of the professionals at the first supervision and by 39% of them at the fifth one. At the last assessment, one year after the completion of the basic course, 61% of the participants reported an increased feeling of confidence in relation to their work compared with their baseline perception (Table 1).

The intervention was proposed to 96 families of patients with schizophrenia. Thirty-one of them (32%) did not accept it. Refusals were mainly due to scepticism regarding the effects of the intervention (27%), patients' poor clinical condition and insight (34%), and family commitments during working hours (27%). Ten families out of 65 (15%)

Table 1 Difficulties and benefits reported by the professionals during the implementation period

	At week 2 (%)	At week 6 (%)	At week 12 (%)	At week 52 (%)
Difficulties				
Availability of suitable families ^a	42	23	22	15
Allowance of time from the service to perform the intervention	53	50	44	40
Integration of family work with caseload or other responsibilities at work	64	54	47	65
Burden of work – too much work, too many demands	65	60	44	43
Unsuitability of the approach to the needs of patients or families	32	4	6	7
Lack of support by the administration or by colleagues	15	11	13	3
Problems with the intervention itself	23	21	9	10
Access to families routinely seen by other professionals ^b	20	35	7	17
Having to work beyond one's usual working hours ^b	42	48	35	14
Lack of confidence with behavioural approaches ^b	23	15	6	6
Lack of confidence with family work	16	16	6	13
Keeping family discussions on track	6	12	10	6
Tailoring the approach to the needs of the family	18	12	10	10
Benefits				
Improvement in staff relationships	22	20	35	35
Improvement in exchange of information on families within the staff	27	28	38	53
Feeling more confident in one's work ^b	14	31	34	61
Clinical results ^c	8	37	39	47
Improvement in the relationships with service users ^d	23	44	57	70
Improvement in the relationships with the service users' families ^a	23	49	56	68

^ap<0.05; ^bp<0.01; ^cp<0.001; ^dp<0.0001

dropped out over the follow-up period. The most frequent reasons for drop-out were the worsening of patient's clinical conditions (30%), the relatives' lack of interest (30%) and the occurrence of physical problems in relatives (20%).

A total of 55 patients (65% male; mean age 30.3±8.7 years; 91% single; 18% employed) received the intervention for one year. Their mean age at onset of illness was 21.8±6.3 years; their mean number of previous voluntary and involuntary admissions was 1.9±2.5 and 0.7±1.3, respectively. The relatives who received the intervention were 118 (46% male; mean age 51.7±16.2 years; 53% employed; 71% parents, 2% spouses, 18% brothers/sisters; 4% sons and 5% other relatives; mean number of years spent with the patient 27.3±7.9).

At the one year follow-up assessment, a significant improvement of patients' clinical status and social functioning, as well as a significant reduction of relatives' objective and subjective burden, was observed (Table 2). Moreover, there was a significant reduction in the use of coercion and resignation as coping strategies, and an increase of relatives' positive communication with the patient and social interests and contacts. Finally, relatives perceived an increase of support from professionals at follow-up vs. baseline (Table 2).

DISCUSSION

To our knowledge, this is the first study on the implementation and effectiveness of a standard psychoeducational intervention for families of patients with schizophrenia which presents simultaneously the following characteristics: a) having been carried out in several European

countries; b) having monitored longitudinally the difficulties and benefits experienced by the professionals in the use of the intervention in their routine practice; c) having explored the effects of the intervention on patients' symptoms and social functioning and on relatives' burden, coping strategies and social network. In some of the countries, the study is currently ongoing on a larger number of professionals and using randomized waiting lists of eligible families as controls.

The organisational difficulties encountered in the implementation of the intervention were substantial throughout the follow-up period. In addition, a poor level of collaboration by colleagues was reported by the professionals. These findings are probably related to the fact that, in most European clinical settings, the management of schizophrenia still focuses exclusively on the affected individual. The introduction of a new treatment which considers the family as an essential resource for recovery in a person with schizophrenia is likely to elicit scepticism or resistance among the professionals. Strategies need to be devised in order to deal with barriers limiting the implementation of family interventions in clinical practice and to facilitate the collaboration of the staff. These should include logistic changes in the mental health services organisation, such as flexibility of working hours and career incentives for professionals involved in the implementation process, as well as management of staff dynamics through work psychology techniques.

Most of the benefits reported by the professionals during the implementation phase increased over time. The clinical benefits reported by the professionals are in line with the statistically significant improvement of patients' clinical condition and social functioning found at follow-

Table 2 Patients' clinical status and social functioning and relatives' burden, coping strategies, social network and perceived help at baseline vs. 1-year follow up

	Baseline (mean ± SD)	Follow-up (mean ± SD)	p<
Patients			
BPRS positive symptoms	2.2 ± 1.0	1.7 ± 0.9	0.0001
BPRS negative symptoms	2.3 ± 1.1	1.9 ± 1.0	0.01
BPRS depression/anxiety symptoms	2.6 ± 1.1	2.1 ± 0.9	0.001
BPRS manic/hostility symptoms	1.9 ± 0.9	1.6 ± 0.7	0.01
DAS global score	2.6 ± 1.1	2.1 ± 1.1	0.0001
Relatives			
<i>Burden</i>			
Objective dimension	1.7 ± 0.7	1.4 ± 0.4	0.0001
Subjective dimension	2.1 ± 0.5	1.8 ± 0.5	0.0001
<i>Coping strategies</i>			
Coercion	1.9 ± 0.7	1.6 ± 0.6	0.01
Patient's social involvement	3.1 ± 0.7	3.1 ± 0.8	N.S.
Collusion	2.3 ± 0.8	2.0 ± 0.7	0.01
Positive communication	3.1 ± 0.5	3.3 ± 0.5	0.0001
Avoidance	1.3 ± 0.7	1.1 ± 0.3	0.01
Information	2.7 ± 0.9	2.5 ± 0.9	N.S.
Maintenance of social interests	2.5 ± 0.5	2.8 ± 0.6	0.0001
Talking with friends	2.2 ± 1.1	2.2 ± 0.9	N.S.
Resignation	2.3 ± 0.8	1.8 ± 0.7	0.0001
Spiritual help	2.8 ± 1.3	2.5 ± 1.2	0.01
Use of alcohol	1.2 ± 0.6	1.1 ± 0.5	N.S.
<i>Social network</i>			
Emotional support	2.9 ± 0.7	3.0 ± 0.7	N.S.
Practical support	3.4 ± 1.1	3.2 ± 0.8	0.01
Social contact	2.1 ± 0.5	2.4 ± 0.6	0.0001
<i>Help received</i>			
Professional help	3.1 ± 0.6	3.4 ± 0.4	0.0001
Understanding by friends	2.6 ± 0.8	2.8 ± 0.7	N.S.

BPRS - Brief Psychiatric Rating Scale; DAS - Disability Assessment Schedule

up assessment. The increase of the professionals' confidence in their work is probably related to the provision of regular supervision meetings, in which they have been offered the opportunity to compare their experiences and devise common strategies to deal with problems occurring in their family work.

The provision of the psychoeducational intervention was associated with a statistically significant improvement in patients' symptoms and social functioning as well as in family burden and coping strategies. These results, which are consistent with data reported in the literature (3,8), could be interpreted in the light of the stress-vulnerability model of schizophrenia (14). This model postulates that psychotic episodes result from the interaction between the individual vulnerability of the patient and the level of environmental stress the patient is exposed to. According to this model, the one-year improvement of patients' clinical conditions and social functioning may be related to changes in relatives' strategies to deal with daily problem-

atic situations, as a result of the psychoeducational intervention (5).

The results of this study support the idea that it is possible to introduce psychoeducational interventions in routine settings. Further investigations are needed in order to identify obstacles at organisational, socio-cultural, clinical and methodological levels which may limit the likelihood that patients with schizophrenia and their families receive these interventions in routine conditions.

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