Efficacy of a Brief Intervention for Carers of People with First-episode Psychosis: a Waiting List Controlled Study

介入治療對照顧思覺失調患者人士的效用:等侯名單對照研究

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Abstract

Objectives: While family psycho-education for schizophrenia is well-supported, the efficacy of family intervention for first-episode psychosis is less studied. This waiting list controlled study set out to evaluate the effectiveness of a 6-week intervention for carers of people with first-episode psychosis.

Participants and Methods: Carers were randomised into experimental or waiting list categories. Study 1 compared various outcome measures in the 2 categories. Study 2 evaluated the treatment effects.

Results: After the intervention, carers showed increased knowledge about psychosis and a reduction in negative ways of coping. The improvement in knowledge was maintained at 6-month follow-up, and trends towards improved caregiving burden and coping were also evident.

Conclusions: A brief intervention programme can be effective in improving important variables such as knowledge, coping, and caregiving burden. The implications for selecting 'core components' for an effective intervention were discussed.

Key words: Caregivers; Group psychotherapy; Psychological adaptation; Psychotic disorders

摘要

目的:儘管醫學界一直認同以家庭心理教育治療精神分裂,但有關家庭介入治療首發思覺失調 的研究則不多。這項等候名單對照研究描述並評估對照顧首發思覺失調患者人員進行6周介入治 療的效率。

參與者與方法:照顧者被隨機分為實驗組或等侯名單組。研究包括兩部分:比較兩組的結果測 量,以及評估治療效果。

結果:照顧者接受介入治療後增進對思覺失調的認識且減低有關適應能力的負面想法。在知識改善方面於6個月隨訪期後仍然持續,也顯示他們照顧負擔及應付方面的正性傾向。

結論:短時間的介入治療計劃能有效改善重要變數,包括知識、適應力和照顧負擔。研究也對 選擇有效治療的核心元素作出討論。

關鍵詞:照顧者、小組精神治療、心理適應力、思覺失調

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Introduction

Family psycho-education has become fundamental in the management of patients experiencing mental illness.^{1.4} The literature to date suggests that meeting the needs of family members dramatically improves patient outcomes and family well-being.⁵

McFarlane et al⁵ reviewed research conducted in the

last decade, which included family psycho-education as a form of evidence-based practice. Family psycho-education includes many cognitive, behavioural, and supportive therapeutic elements, and often utilises a consultative framework, whilst sharing key characteristics with other types of family interventions.⁵

Various approaches to family psycho-education have been developed and studied. One of the most-researched is the psycho-educational multiple family group,⁶ which consists of 3 phases: joining in a collaborative alliance with family members; gradually increasing community functioning of the patient; and establishing an ongoing social network.⁷ Other evidence-based family intervention models include behavioural family management,⁸ family psycho-education,⁹ and resorting to relative groups.^{10,11} These interventions usually involve intensive sessions over a period of months to years. Solomon et al^{4,12} compared 2 short-term models involving family intervention, but found that favourable outcomes were only modest for the carers and questionable for the patients.

The small number of randomised studies suggests that brief interventions are ineffective in improving carer distress, burden or poor coping,¹²⁻¹⁵ while long-term psychoeducational interventions are more successful.¹⁶ Other reviews also suggested that long-term interventions (up to 9 months) are more effective than shorter-term treatments (up to 3 months).^{17,18} However, the number of sessions might not completely explain the differences in outcomes. Length of total time, allowing for refinement of coping skills and strategies by the family and patient, rather than the number of sessions, may be a factor. Also, brief interventions tend to be focused on information presentation, without also providing family members with skills training, ongoing guidance regarding illness management, and emotional support.¹⁹ The latter are all core elements for effective psycho-educational interventions.⁵ Therefore, delivery of the appropriate components of family psycho-education to families appears to be important in determinant of outcomes for both families and patients.

While the efficacy of family intervention in schizophrenia is well-established, the type of family intervention best suited in first-episode psychosis is less apparent. The issues facing first-episode patients are different from those facing the chronically ill and their relatives.^{18,20} Addington and Gleeson²¹ identified the following explicit goals in working with first-episode families: (1) to maximise the adaptive functioning of the family; (2) to minimise disruption to family life caused by the first episode; (3) to minimise the risk of long-term grief, stress and burden experienced by the family; and (4) to aid the family in understanding the impact of psychosis on the family system, individual family members and the interaction between them and the course of the psychosis. Linszen et al¹⁸ suggested that the intervention needs to be refined and selective, and that comprehensive family interventions may be inappropriate. Rather, they advocated brief educational programmes focusing on problem-solving and relapse prevention as highly suitable for first-episode psychosis afflicted families.

Addington et al²² reported the 3-year outcome of a family intervention that was an integral component of an early psychosis management programme. They found improved psychological well-being and experience of caregiving after 1 to 3 years of family intervention. The Early Psychosis Prevention and Intervention Centre²³ adopted a brief programme, which, in 4 sessions, explored the definitions of mental illness, explored possible causes of mental illness through the stress vulnerability model, and described treatment options based on mental illness using biopsychosocial models. Strategies for relapse prevention and early warning identification signs, monitoring and response plans were also included.²³⁻²⁵

The aim of the present study was to evaluate the effectiveness of a 6-session psycho-educational intervention for carers of patients with first-episode psychosis, and involved measuring the changes in the participants' knowledge of psychosis, caring burden, coping, and expressed emotions.²⁶

Methods

Subjects and Methods

Participants were recruited from the Early Assessment Service for Young People with Psychosis (EASY) in Hong Kong, which was an early intervention project for patients with firstepisode psychosis aged 15-25 years.²⁷ Relatives were recruited into the study if: (1) they had a family member suffering from the first episode of a psychotic disorder (schizophrenia, schizoaffective, or schizophreniform disorder) according to the criteria of the 10th revision of the International Statistical Classification of Diseases and Related Health Problems²⁸; (2) they were the major carers of the patient, as identified by both patient and the carer; (3) they were living with the patient at the time of recruitment; and (4) they gave written informed consent to participate in the study. Relatives were not recruited if they were actively receiving psychiatric services or if the patient was receiving inpatient treatment.

All 45 carers fulfilling the above criteria were recruited from 3 study sites (Kwai Chung Hospital, Prince of Wales Hospital, and Queen Mary Hospital). Recruitment and randomisation took place between 6 and 12 months after the index patient's entry into the EASY service, when their psychotic symptoms were generally stabilised with medication. With the patient's permission, each carer was contacted to discuss details of the study. Following baseline (pre-intervention) assessment, the carers were randomly assigned by a computer to an active intervention or waiting list (control) group, as shown in the Figure.

All corresponding carers' patients were treated with antipsychotic medication, and efforts were made to ensure that their regular medical service was unaffected.

Active Intervention

Active intervention for carers of patients with first-episode





psychosis took place at Kwai Chung Hospital (n = 29), Queen Mary Hospital (n = 7), and a youth centre (n = 9) 1 evening per week for a period of 6 weeks. Each session lasted approximately 1.5 hours. Participants were divided into 8 groups of 4 to 8 each. A Masters level psychologist ran the sessions under the supervision of the first author. The group therapist initiated phone engagements with the carers before the first session, facilitated group discussions, and contacted the carers when they missed a session. The patients were not contacted except for the purpose of outcome assessment.

The first 3 active intervention sessions were organised to consolidate the carers' knowledge about psychosis, whereas the last 3 were aimed at enhancing their skills in handling the patients' illness and their own caregiving stress. Major components in the 6 sessions entailed education on early psychosis and its treatment, handling difficult behaviours, stress management, communication skills, and relapse prevention. The Appendix provides a brief description of the intervention programme and a detailed protocol is available from the first author. Attempts were made to balance content delivery with support and experience sharing; open discussion and questions were encouraged. Each session began with a few minutes of socialising and a brief review on the week's events, or on the progress of assignments set in the last session. Participants were also encouraged to ask questions and make suggestions regarding topics for discussion. A 15minute break was introduced in the middle of each session. Such breaks were of significant value in encouraging more interpersonal interaction among the participants.

By protocol, carers in the study were not given any intensive individual or family psychotherapy other than to those assigned to the active intervention. Only continued engagement with the patient's case manager (usually a psychiatric nurse or medical social worker) was provided. All the case managers were briefed about those receiving active intervention beforehand and agreed to adhere to the same case management package that they usually used, whether or not the carers were recruited into the study.

Control Condition

A 6-week period, whilst patients were on the waiting list served as the control condition, whereby the carers received nothing more than continued engagement and needs-based counselling with each patient's case manager. The case management package for the control period was available from the first author. Although case managers answered questions about individual patient illnesses and recovery, they did not provide systematic psycho-education as in the intervention group. Also, there was no active participation by the carers, by way of completion of required homework assignments. Since the participation in a group was believed to have therapeutic benefits over and above usual treatment, for ethical reasons after the 6 weeks of waiting period (control) treatment, carers were also provided an identical group intervention by the same therapist.

Outcome Measurements

Major outcome measures were: carers' knowledge about psychosis, caregiving experience, coping style, and expressed emotion. Associated measures included carers' general health and stressful life events.

Except for the Positive and Negative Syndrome Scale (PANSS), all measures were administered at baseline, after their group therapy sessions (6 weeks), and 6 months after completion of the session. Carers acting as waiting list controls had additional measurements 6 weeks after the baseline measurement. Most outcome measures were self-administered by the carers, except for the Level of Expressed Emotion (LEE) which was self-administered by the patients. The major outcome measures for this study are described below.

Knowledge about psychosis scale (available from the first author) was an ad-hoc measure developed by the researchers. The scale comprised 19 fill-in-the-blank and 5 dichotomous forced-choice items. It targeted illness-related topics covered in the active intervention programme, namely psychopathology, aetiology, treatment, and illness management. A pilot study conducted with a sample of 203 patients with first-episode psychosis showed that the scale had fair internal consistency with an overall alpha of 0.67 and 0.72 for the fill-in-the-blank and dichotomous items, respectively. Participants in the present study also showed a high internal consistency, with an overall alpha of 0.79, and the frequency plot of all items showed a normal distribution.

The Experience of Caregiving Inventory (ECI) was a self-reported measure of the experience of caring for a mentally ill person,²⁹ conceived as a measure of appraisal. It comprised 10 subscales, 8 negative (difficult behaviours; negative symptoms; stigma; problems with services; effects on family; need to backup; dependency; sense of loss) and 2 positive (rewarding personal experiences; good aspects of the relationship with the patient), derived from 66 items. Each subscore indicated the extent that the respondent was concerned about that respective area of caregiving; total scores could range from 0 to 264.

The Chinese Ways of Coping Questionnaire³⁰ (CWCQ) was a 16-item scale designed to measure coping activities among Chinese students and adults, and was reduced from its original 66-item version.³¹ This new version included 4 subscales: rational problem-solving; resigned distancing; seeking support and ventilation; and passive wishful thinking. Each subscore reflected the extent to which the respondents used to cope with events in daily living. The potential score for each subscale ranged from 0 to 12. Chan³⁰ reported on the internal consistency of the CWCQ, with an alpha of 0.62 for resigned distancing and alphas ranging from 0.70 to 0.74 for the other 3 subscales. In this study, participants were asked to respond to the CWCQ in the context of coping with their child's psychotic illness.

The LEE³² scale was a self-reporting measure of the perceived emotional climate in a person's influential relationships. The scale was constructed on the basis of a conceptual framework described by expressed emotion theorists. In addition to providing an overall score, the 60item scale assessed the following 4 characteristic attitudes or response styles of significant others: intrusiveness, emotional response, attitude toward illness, and tolerance / expectations. The potential score ranged from 0 to 60. Cole and Kazarian³² reported excellent internal consistency, with a KR-20 coefficient for the overall scale of 0.95; for the subscales they ranged from 0.84 to 0.89. Stability for the overall scale was also high, with a 6-week test-retest correlation on a subsample of 0.82.

To control for other variables that may account for the changes observed, the following measures were also included.

The General Health Questionnaire (GHQ)-12 is one of the most widely used screening instruments covering a range of psychiatric symptoms – anxiety, depression, somatic, and social dysfunction. Several versions of the GHQ have been developed, including 60-, 30-, 28-, and 12-item scales. The GHQ-12³³ is the most commonly used version, because of its brevity and the availability of normative data.³⁴⁻³⁶ The GHQ scoring method was used. Potential scores ranged from 0 to 48.

The Life Events Questionnaire³⁷ focused on 12 categories of common life events that are highly likely to be threatening (e.g. bereavement or being sacked from a job). The respondents were asked to indicate whether any of such events impinged on them in the past month.

The PANSS³⁸ was one of the most widely used screening instruments for assessment of positive and negative psychotic symptoms. The scale has a total score and 4 subscores: positive subscale, negative subscale, general subscale, and aggressiveness subscale, and was administered by the patient's treating psychiatrist on a regular basis.

Statistical Analysis

All analyses of the quantitative data were conducted using the Statistical Package for the Social Sciences version 11.0. In Study 1, the treatment effect of the intervention group was compared with the waiting list participants (controls). Differences in scores before and after the active and control interventions were computed for continuous variable outcomes, and the association to treatment allocation was analysed by the independent samples *t* test, whenever assumptions of normality and homogeneity of variances were acceptable. In Study 2, data in the 2 allocation groups were combined to evaluate the effect of the intervention programme on outcome measures pre-intervention, postintervention, and at the 6-month follow-up, using a one-way analysis. The level of statistical significance was chosen as p < 0.05.

Results

The socio-demographic characteristics of the carers are displayed in Table 1. There were no statistically significant differences in socio-demographic characteristics between allocation groups or study sites, both for carers and patients. Patients' baseline measure on PANSS (mean [SD], 52.90 [22.13]) and duration of untreated psychosis (mean [SD] number of days, 181.13 [191.42]) also showed no difference between the allocation groups.

There were similar high attendance rates for the active and control intervention groups; the mean (SD) percentage of attendance being 87.0(13.5) and 88.0(13.8), respectively. There was no significant difference between the groups with respect to the number of life events reported and total scores on the GHQ.

Study 1: Intervention Group Versus Waiting List Control

Table 2 summarises the findings for major and associated outcome variables. Carers receiving the active intervention displayed a statistically significant increase (p = 0.01) in knowledge about psychosis after the intervention, a significant decrease in the total scale score (p = 0.004) and

Table 1. Socio-demographic characteristics of th	e carers.*
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Characteristics	Experimental group (n = 22)	Control group [†] (n = 23)	p Value
Sex			
Male	4 (18.2)	3 (15.0)	
Female	18 (81.8)	17 (85.0)	0.78
Age in years (mean [SD])	49.6 (4.5)	49.2 (4.8)	0.76
Years of education (mean [SD])	7.9 (4.4)	9.0 (3.1)	0.37
Relationship			
Father	4 (18.2)	3 (15.0)	
Mother	18 (81.8)	17 (85.0)	0.78
Family income per month (HKD)			
< 5,000	3 (13.6)	3 (13.6)	
5,000-10,000	7 (31.8)	8 (36.4)	
10,001-20,000	8 (36.4)	5 (22.7)	
20,001-30,000	2 (9.0)	4 (18.2)	
> 30,000	2 (9.0)	2 (9.1)	0.80
Occupation			
Professional	3 (13.6)	0 (0)	
Skilled work	3 (13.6)	3 (14.3)	
Unskilled work	3 (13.6)	2 (9.5)	
Housewife	10 (45.5)	12 (57.1)	
Unemployed	2 (9.1)	3 (14.3)	
Retired / other	1 (4.5)	1 (4.8)	0.29
Hours per week with patient (mean [SD])	53.6 (33.4)	54.9 (30.4)	0.90
PANSS score of patient (mean [SD])	54.3 (27.4)	51.4 (15.4)	0.69

Abbreviation: *PANSS = Positive and Negative Syndrome Scale*.

 x^2 for enumeration data; t test for measurement data. Values are expressed as number (%) unless otherwise specified.

[†] Some data were missing in control group (3 for sex, 3 for relationship, 1 for family income, and 2 for occupation).

Outcome measures	Experimental group (n = 22)*	Waiting list control group (n = 23)*	p Value
Knowledge about psychosis	17; 5.59 (4.32)	16; 0.44 (4.43)	0.01
CWCQ frequency	18; -3.72 (6.65)	18; 2.72 (5.98)	0.004
Rational problem-solving	20; -0.90 (2.95)	20; 0.95 (2.11)	0.03
Resigned distancing	20; -1.05 (2.39)	21; 0.71 (1.76)	0.01
Seeking support and ventilation	19; -0.79 (1.87)	20; 0.25 (2.34)	0.14
Passive wishful thinking	21; -0.71 (1.79)	20; 0.90 (2.00)	0.01
ECI			
Negative sum score	11; -3.73 (15.81)	15; 1.27 (18.25)	0.47
Positive sum score	15; -0.87 (4.56)	17; -0.59 (6.82)	0.89
LEE overall score	13; -5.15 (7.36)	16; -3.13 (9.24)	0.53

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Abbreviations: CWCQ = Chinese Ways of Coping Questionnaire; ECI = Experience of Caregiving Inventory; LEE = Level of Expressed Emotion.

* Data are shown as number of participants; mean (SD) increase / decrease.

in 3 of the 4 subscales of the CWCQ (rational problemsolving, resigned distancing, and passive wishful thinking; p < 0.05). There were no significant differences in the ECI or LEE between the groups.

Study 2: Analyses of Intervention Effects after Combining Data from the Two Allocation Groups By protocol, the same intervention was conducted

(eventually at least) by the same therapist for all carers in this study, regardless of their allocation group (Table 1). There was no significant difference between the 2 allocation groups in terms of socio-demographic characteristics. The treatment effects in the active intervention groups were not significantly different from those in the controls. Since the 2 groups were matched for both socio-demographic characteristics and trends of treatment effects, we pooled

Outcome measures	df	F value	p Value	Effect size* (95% confidence interval)
Knowledge about psychosis	3	10.069	0.0005	1.06 (0.57-1.53)
CWCQ frequency	3	1.855	0.14	-0.34 (-0.77 to 0.10)
Rational problem-solving	3	1.733	0.17	-0.33 (-0.75 to 0.10)
Resigned distancing	3	0.634	0.60	-0.26 (-0.68 to 0.17)
Seeking support and ventilation	3	1.495	0.22	-0.35 (-0.78 to 0.08)
Passive wishful thinking	3	2.024	0.12	-0.26 (-0.68 to 0.17)
ECI				
Negative sum score	3	0.867	0.46	-0.19 (-0.66 to 0.27)
Positive sum score	3	1.230	0.30	-0.13 (-0.57 to 0.32)
LEE overall score	3	0.798	0.50	-0.13 (-0.60 to 0.35)

Table 3. Outcome measures across time-points in the total sample.

Abbreviations: df = degrees of freedom; CWCQ = Chinese Ways of Coping Questionnaire; ECI = Experience of Caregiving Inventory; LEE = Level of Expressed Emotion.

* Post- versus pre-intervention.

the data from the 2 allocation groups to obtain a larger sample size.

Table 3 shows results of the analysis of variance comparing outcome measures at pre-intervention, post-intervention, and at 6-month follow-up. It shows a significant change in knowledge about psychosis (p = 0.0005). Post-hoc tests showed that there was a significant increase in knowledge about psychosis between pre- and post-intervention measurements (mean difference, 4.47; p = 0.0005), which was maintained at the 6-month follow-up (mean difference between post-intervention and follow-up measurement, 0.10; p = 0.93). The effect size of the post-intervention decreases in the CWCQ scores was mild to moderate, and did not attain statistical significance.

Changes in ECI subscores of negative symptoms (p = 0.08) and dependency (p = 0.09) showed trends towards statistical significance. Post-hoc tests revealed that there was a significant decrease in the subscore for negative symptoms between the pre-intervention and follow-up measurements (mean difference, 2.83; p = 0.02). Such decreases continued well after the intervention at the follow-up measurement (mean difference, 2.97; p = 0.02). Subscore dependency decreased significantly between the pre-intervention and follow-up measurements (mean difference, 2.07; p = 0.02).

Discussion

Carer Outcomes

The results of this waiting list controlled trial suggest that the psycho-educational programme significantly improved carers' knowledge about psychosis, over and above the waiting list controls in receipt of usual psycho-education. The effect was maintained for at least 6 months. This is an important finding, because increased knowledge of the illness and treatment enables the patients and relatives to use the mental health care system more effectively.³⁹

The results also suggest that the frequency of coping methods used decreased after the active intervention, most markedly in the subscales of negative coping (resigned distancing and passive wishful thinking). However, a decrease in rational problem-solving was also noted, which may be due to a general decrease in the number of coping strategies adopted when the carers became more knowledgeable about the illness. Post-hoc correlation analysis showed that passive wishful thinking was most markedly reduced among carers of patients with milder baseline psychopathology. This finding is not consistent with other similar studies,^{12,14,15,19} which suggested that brief interventions are ineffective in improving carer distress, burden or poor coping.

The only statistically significant post-intervention change in the ECI scale was the reduced subscore for problems with services, especially among carers of patients with less severe baseline psychopathology. Carers with the greater reductions in perceived burden about problems with services also had greater reductions in the CWCQ subscore for resigned distancing. This implies that active intervention reduced the participants' distress about relating to services and increased their initiative for help-seeking, although such change was not maintained after 6 months. Further studies using behavioural measures of help-seeking may be needed to test this hypothesis. Significant reductions in the ECI subscores for negative symptoms and dependency were found, yet such changes took place relatively slowly and suggested a continuous decrease between the preintervention and follow-up assessments. Possibly the core skills taught in treatment may be consolidated over time in the absence of ongoing therapy, but could also be attributable to the natural course of recovery from the psychotic illness.

There was no statistically significant active intervention–associated change in the perceived expressed emotion reported by patients. The reason could be that the duration of the intervention was insufficient for marked changes in emotional relations. In a meta-analysis of family interventions, Mari and Streiner⁴⁰ only found marginally significant changes in expressed emotion status in spite of reductions of relapse. This indicates that expressed emotion in relatives of patients with psychosis can be difficult to influence, even by more comprehensive interventions. Besides, in this study the findings of expressed emotion could also have been limited by the use of a rather brief measurement tool.

Methodological Issues and Clinical Implications

The 6-week intervention programme under study met carers' phase-specific needs by providing information about first-episode psychosis and promoting interpersonal support. The comparable effectiveness of this study, albeit briefer than studies of similar design, may shed light on the inclusion of 'core components' in a cost-effective psychoeducational programme for carers of patients with firstepisode psychosis. The clinical components included in this intervention programme (education, coping and problemsolving, behavioural skills training, stress management, and communication enhancement) were chosen based on the evidence from previous studies.5 Limited by the rather small sample size, this study could only show benefit to carers of patients with first-episode psychosis by combination of clinical components. Further studies with a larger sample size may show more specific associations between each treatment component and specific outcome measures.

This intervention programme appeared to confer improvements over and above those accruing in waiting list controls (i.e. engagement and psycho-education). This indicates the importance of having a group that allows the carers to have access to each other, to learn of other families' successes and failures, and to solicit emotional and social support. Since participants were allowed to make suggestions about topics for discussion, adaptations for culture-specific issues were flexibly incorporated into the programme. However, generalisability of the results may be limited by having only 1 therapist and lack of ongoing measurements of the patients' symptomatic and clinical recovery. As in other treatment studies, potential impact from non-specific treatment effects must be carefully considered before interpreting the results.

Given that unselected carers were recruited under the usual circumstances of a service setting, this study had a relatively high attendance rate. This was not consistent with findings of other studies showing high dropout rates and difficulty in engagement.^{41,42} This difference could be attributed to the lower demand for time commitment in this study, as well as the therapist's follow-up of absentees. Whenever therapists no longer contacted participants, a significant percentage of participants were lost to follow-up within months. However, sample selectivity of this study was limited, as the rate of carers refusing to participate was not reported.

While other investigations to date mostly measured outcomes reported by carers, this study included patients' reports in the measurement of expressed emotion. This is purported to provide additional collateral information. While the importance of reducing expressed emotion is wellestablished in studies on chronic schizophrenia, it may be of less significance in first-episode psychosis. Studies have shown that expressed emotion changes over time and can be affected by the patient's course of illness. The latter often waxes and wanes in the early phase of psychosis.⁴³⁻⁴⁵ Besides, recent studies argue that elements that focus on problemsolving, anxiety management, coping and communication skills training, and enhanced social networks and support may be more directly associated with relapse prevention than reductions in expressed emotion.⁴⁶⁻⁴⁸ Findings in these investigations as well as the current study indicate that important therapeutic goals may be achieved by following the professionally led intensive intervention programme by consumer-led self-help groups. Moreover, they extend social support without impinging on already limited clinical resources.

Shorter psycho-educational programmes for relatives are important to evaluate because comprehensive family interventions are impossible to implement in all psychiatric services. Furthermore, decisions regarding the optimal content, intensity and duration of these interventions could make for more specific and effective psycho-education interventions. The present study suggests that a short psycho-educational programme for carers of patients with first-episode psychosis increases and maintains knowledge about psychosis for as long as 6 months. It also brings about some short-term improvements in coping and the caregiving burdens.

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Appendix. Major elements of the psycho-educational programme for carers of patients with first-episode psychosis.

Session one

- Establishment of rapport
- Introduction of the purpose and nature of the sessions
- Discussion of the major problems faced by the carers
- Validation of the carers' feelings about caring for the patient

Session two

- Discussion of personal interpretation of psychosis "why did psychosis occur to my relative?"
- ♦ Identification and correction of myths and misconceptions about psychosis
- Education of the symptomatology, aetiology, and course of psychosis using the vulnerability-stress-coping model^{49,50}

Session three

- Explanation of various clinical stages of the psychotic illness and therapeutic tasks at each stage
- Discussion of expectations about recovery and remission with support from clinical experience and empirical evidence
- Medication adherence and management of medication side-effects
- Communication between carers and the care team

Session four

- ♦ Identification of difficult behaviours and the emotional and behavioural consequences
- Delineation between illness- and person-related attributions
- Identification and rehearsal of skills in establishing behavioural control and boundaries
- ♦ Interaction between negative emotions and ineffective coping

Session five

- Role-play of the skills learned in Session four
- Practice of 6-step problem-solving procedure
- Introduction and rehearsal of skills of positive communication
- Concept of expressed emotion and its interaction with the patient's illness

Session six

- Revision of the previous topics
- Identification and management of the carers' own stress
- Discussion of changes brought by the patient's illness and / or treatment to the family
- Emphasis of social support and balanced lifestyle
- ♦ Concept of relapse prevention
- ♦ Introduction of the Early Signs Scale⁵¹