

# Training families to better manage schizophrenics' behaviour

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تدريب العائلات على حسن التعامل مع سلوكيات مرضى الفصام  
قربا نعلي أسد الله و غلام رضا قاسمي وطيبة مهرايبي

**خلاصة:** تزخر الوثائق بالشواهد على الدور المؤثر الذي تلعبه العائلات في حسيطة مرض الفصام المزمن. ولما كانت العائلات قد أصبحت هي المصادر الرئيسية لتوفير الرعاية، فقد صممت هذه الدراسة لتدريب آباء المصابين بالفصام المزمن على تحسين معاملة أبنائهم. وشملت عينة الدراسة أربعين والداً أدخل أبنائهم قاعة للأمراض النفسية من نيسان/أبريل إلى حزيران/يونيو 1996، واستعمل الباحثون دليلاً طوروه بأنفسهم (مهارات معاملة المرضى) س أجل قياس التغيرات في خبرة الآباء في معاملة أبنائهم قبل وبعد شهر من حضورهم برنامجاً تدريبياً. وتبين بعد التدريب أن مزيداً من الآباء قد اكتسبوا المهارات الضرورية للتعامل مع السلوكيات اللفظية وغير اللفظية من قبل أبنائهم. إن النتائج التي توصلنا إليها تؤكد أهمية الدور المساند من قبل العائلة في وصول مرضى الفصام إلى نتائج أفضل.

**ABSTRACT** The influential role of family in the outcome of chronic schizophrenia is well documented. Because families have become the primary caretakers, this study was designed to train parents of chronic schizophrenics to better manage their offspring. The sample comprised 40 parents whose offspring were admitted to a psychiatric ward from April to June 1996. A self-developed index (Patient Management Skills) was used to measure changes in the parents' expertise in handling their children before and after a 1-month training programme. After training, more parents had the necessary skills to manage the verbal and non-verbal behaviours of their children. Our results bear out the importance of the family's supportive role in producing a better outcome for schizophrenic patients.

## La formation des familles à une meilleure prise en charge du comportement schizophrénique

**RESUME** L'influence de la famille dans l'évolution de la schizophrénie chronique est bien documentée. Les familles assurant maintenant le rôle principal dans la prise en charge, cette étude était conçue pour former les parents de schizophrènes chroniques afin qu'ils puissent mieux prendre en charge leurs enfants. L'échantillon comprenait 40 parents dont les enfants avaient été admis dans un service de psychiatrie d'avril à juin 1996. Un indice mis au point au sein de ce service (aptitudes pour la prise en charge des patients) a été utilisé pour mesurer les changements dans les compétences des parents pour la prise en charge de leurs enfants avant et après un programme de formation d'un mois. Après la formation, davantage de parents avaient les aptitudes nécessaires pour prendre en charge le comportement verbal et non verbal de leurs enfants. Nos résultats confirment l'importance du rôle de soutien des familles pour une meilleure issue chez les patients souffrant de schizophrénie.

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## Introduction

Mental disorders rank among the most severely disabling illnesses in most societies in terms of cost, the number of persons involved, chronicity and suffering. Schizophrenia is probably the most disabling type of mental illness. It has a long duration and is found in most societies [1]. The affliction induces gross disturbances in a person's thoughts, perceptions and moods [2]. Advanced psychiatric drugs appear to significantly reduce the severity of schizophrenics' acute symptoms, such as hallucinations and delusions. However, they can be less effective at reducing the negative symptoms of the schizophrenic patient. The removal of acute symptoms may facilitate community treatment of schizophrenics, but does not ensure full restoration of effective social functioning [3].

Schizophrenia as a disease is characterized by cognitive, psychophysiological and interpersonal deficiencies that result in a marked vulnerability to stress. Episodes of illness occur in vulnerable individuals or those who experience stressful interaction with family members. Several diagnostic and prognostic studies have dealt with the intricacy of family environment and relapse rate in schizophrenia [4]. Studies on schizophrenia have identified three trends of thought regarding the family and its role in the occurrence of the disorder. The etiology of schizophrenia in a child was at first perceived as a direct result of inappropriate parenting. Fromm-Reichman introduced the concept of the "schizophrenogenic mother" [5]. The second trend focused on concepts such as double-binding [6], schismatic or skewed marriages [7] and pseudo-mutuality [8].

In recent years the third trend of thought about family focused on the family's re-

sponse to the inevitable trauma of living with a chronically mentally ill member. Vaughn and Leff made pioneering contributions by developing objective criteria to study the family environment of schizophrenics and introduced the concept of expressed emotion (EE) [9]. In a classic study they established a significant association between the expressed emotions of relatives and a patient's relapse rate [10]. A series of highly structured, supportive and psychoeducational family intervention models aiming at deintensifying the family environment have been developed [11]. The shift in thought regarding the family's role from etiologic agent to coping agent and responder has resulted in several promising research and clinical approaches [12-17].

Attempts have been made to predict the outcome of schizophrenia from family dynamics. A 2-year follow-up of patients by Leff and Vaughn found that patients from high EE homes had significantly greater relapse rates than those from low EE homes [18]. Patients from excessively critical or emotionally over-involved families were much more likely to relapse than their counterparts from more tolerant families [19]. Spiegel and Wissler's study predicted more days of rehospitalization for those schizophrenics whose families were critical of them and lacked cohesion, social interaction and adequate expressive skills [20]. In another study, criticism and over-involvement expressed by a key relative about the patient at the time of admission proved to be the best single predictor of symptomatic relapse in the 9 months after discharge from hospital [21]. Family characteristics such as 'cohesion', 'conflict', and 'idealization' have been reported to play a major role in the outcome of schizophrenia [22]. Leff et al. found that patients in the community who were not using med-

ication were vulnerable either to acute stress from life events or to chronic stress from living with a high EE relative. They suggested that regular medication could protect patients against relapse [23]. They found that schizophrenics, however, were more likely to relapse if they experienced two forms of stress at the same time.

Thus, family studies suggest that relapse among schizophrenics is partially related to a disturbed family environment. Researchers have begun to define the parameters of family in perpetuating the illness. However, systematic data to support the hypotheses are lacking and replicated studies have resulted in no appreciable increase in the ability to predict and prevent the occurrence of this illness. The existing gap has meant that treatment of schizophrenics has focused on protecting them from further breakdown by making their family environment more conducive and less threatening to their lives. To this end, several innovative attempts have been made to improve the interaction skills of caretakers of schizophrenics. Liberman et al. used techniques of interpersonal problem-solving therapy for the better adjustment of schizophrenics in their families [24,25].

Behavioural therapy has resulted in significant beneficial changes in the atmosphere of families of schizophrenics. Tarrrier et al. found that relapse rates over 9 months after discharge were significantly lower for patients in two behavioural interventions when compared with those who merely received education or routine treatment [26, 27]. Non-compliance with family treatment was associated with poorer outcome. It has been found that family therapy and group therapy can help reduce the components of EE, i.e. critical comments, hostility and over-involvement and can help lower the relapse rate of schizophrenics

[28]. Family intervention has also been found to reduce a patient's negative and positive symptoms [29]. Researchers have been able to improve the interpersonal functioning of psychiatric patients by means of family communication training [30].

Researchers have attempted to make essential alterations in the family environment of schizophrenics. However, research on management skills of families of schizophrenics is lacking. In order to protect schizophrenics from further disability, we need to modify and improve the interaction skills of their caretakers. The present study was designed to examine the efficacy of family education in bringing about desirable changes in the management of schizophrenic patients.

### Objectives

This experimental study attempted to improve the management skills of parents for their schizophrenic offspring. The specific objectives of the study were:

1. to assess the parents' pre-training management style of their offspring's:
  - verbal behaviours [extreme silence (mutism), disorganization, irrelevant talk, stereotyped speech, hallucination and delusion]
  - non-verbal behaviours (isolation, flatness of ideas, emotionalism, stereotyped behaviour, aggression, paranoid ideas and sexual urges);
2. to assess the parents' post-training management style of their offspring's verbal and non-verbal behaviours;
3. to compare the differences, if any, in the parents management skills with the patients' verbal and non-verbal behaviours before and after training.

## Subjects and methods

The study sample was selected from the psychiatric ward of Noor Medical Centre, Esfahan, Islamic Republic of Iran between April and June 1996. Parents whose offspring were admitted to the ward with the diagnosis of schizophrenia constituted the subjects of this study. The sample subjects comprised 40 parents, i.e. 20 fathers and 20 mothers who were selected by a simple random sampling method. They were the primary caretakers of their offspring and showed willingness to participate in the study.

Management style of verbal and non-verbal behaviours of patients was the major dependent variable. These behavioural measures were assessed by a self-developed index. Patient Management Skills (PMS), which was administered to the parents before and after training with a gap of 3 months. This instrument contained 49 items, of which 19 items measured verbal behaviours and 30 items measured non-verbal behaviours. In expressing their experiences, the respondents had three options: yes, no or not applicable. The answers indicated parents' mastery of the management of their schizophrenic offspring. The index was tested for validity, using content method. Its reliability was established by the test-retest method, giving an alpha-value of 0.95. The data were analysed using *SPSS*. Descriptive statistics accompanied by ANOVA were used to compare the changes which occurred in the management style of the parents.

The training course for the parents was curriculum-based. It provided guidelines for parents about the nature of schizophrenia, its probable causes, the behavioural disturbances associated with it, the skills needed to connect with the patient, implica-

tions of disturbed family environment and the importance of medication. Lectures, group discussions, case illustrations and demonstrations of management skills were used as the main methods to impart information to the parents. The content of the programme is given in Table 1.

## Results

In all, 20 men and 20 women participated in the study. The average ages of the men and women were 49.3 years and 46.8 years respectively. The mean age of the 40 participants was 47.7 years. The majority of the parents, 15 men and 17 women, had had primary-level education; 18 women were housewives and 2 were employed outside the home. All of the men were employed and had steady sources of income.

### Management of patients' verbal behaviours

Four hypothetical behavioural conditions of the patient, mutism, irrelevant talking, stereotyped speech, and delusions and hallucinations were addressed and parents shared their experiences. A comparative picture of parents' reactions to their offspring's verbal behaviours before and after training is given in Table 2.

The data indicate considerable changes in the number of parents using appropriate skills to deal with their offspring. Before training the average score of the parents' reactions to verbal behaviours was 7.6 (SD = 2.9). This rose to 15.8 after training (SD = 2.2). Before training approximately 41% of the responses of the parents were appropriate (mean = 16.2, SD = 1.7) whereas after training this increased to 80% (mean = 30.2, SD = 1.05). The nature of the parents' reactions to their offspring in the four

Table 1 Curriculum content of the training course

Content	Method
Defining schizophrenia and its causes	Lecture
Target symptoms of schizophrenia	Lecture
Schizophrenic patient's self-care	Lecture cum film show
Patient's general feelings and emotions	Lecture cum case presentation
Delusions associated with the illness	Lecture cum case presentation
Hallucinations in schizophrenia	Lecture cum case presentation
Speech disturbances in schizophrenia	Lecture cum case presentation
Schizophrenic's stereotyped behaviours	Lecture cum case presentation
Schizophrenic's aggressive behaviours	Lecture cum case presentation
Patient's impulsive behaviours and sexual urges	Lecture cum case presentation
Rapport building with a schizophrenic patient	Lecture cum case presentation
Management of patient's inappropriate moods	Lecture cum case presentation
Management of patient's stereotyped behaviours	Lecture cum case presentation
Management of patient's aggressive behaviours	Lecture cum case presentation
Training patient for self-care	Lecture
Handling patient's impulsive behaviours	Lecture

areas therefore appeared to change after being exposed to the training programme. The observed changes were statistically significant for the parents' reaction to verbal behaviours ( $t = 7.05$ ,  $P < 0.01$ ) and for the number of parents using appropriate skills ( $t = 6.89$ ,  $P < 0.01$ ).

### Management of patients' non-verbal behaviours

Seclusion, apathy, stereotyped behaviour, scepticism, slovenliness and hypersexuality are common non-verbal behaviours of a schizophrenic patient. The reactions of parents to their offsprings' non-verbal behaviours before and after training are shown in Table 3. The results indicate remarkable changes in the skills of parents in handling their offspring's non-verbal behaviours.

Before training their average score was 13.05 (SD = 3.03), which rose to 22.2 (SD = 1.07) after training. Before training 43.4% of the responses of the parents were appropriate (SD = 2.90), whereas after training this increased to 75% (SD = 2.31). These changes were statistically significant for the change in parents' reactions ( $t = 6.90$ ,  $P < 0.01$ ) and for the number of parents using the appropriate skills ( $t = 7.00$ ,  $P < 0.01$ ).

### Discussion

Our study was designed to examine the efficacy of family education in changing attitudes and behaviours in the family members of schizophrenics. Before inter-

**Table 2 Distribution of parents' reactions to the verbal behaviours of their schizophrenic offspring**

How do you handle your offspring in the situations given below?	Before training			After training	
	AP No. (%)	NAP No. (%)	NA No. (%)	AP No. (%)	NAP No. (%)
<i>Mutism</i>					
Coercing	11 (27.5)	29 (72.5)	0	21 (52.5)	19 (47.5)
Coaxing	10 (25.0)	30 (75.0)	0	24 (60.0)	16 (40.0)
Pleasing	17 (42.5)	13 (32.5)	10 (25.0)	40 (100.0)	0
Ignoring	11 (27.5)	29 (72.5)	0	33 (82.5)	7 (17.5)
<i>Irrelevant talking</i>					
Curbing	21 (52.5)	19 (47.5)	0	29 (72.5)	11 (27.5)
Giving negative feedback	18 (45.0)	22 (55.0)	0	20 (50.0)	20 (50.0)
Listening carefully	7 (17.5)	22 (55.0)	0	26 (65.0)	14 (35.0)
Giving positive feedback	21 (52.5)	5 (12.5)	14 (35.0)	38 (95.0)	2 (5.0)
<i>Stereotyped speech</i>					
Cutting speech short	13 (35.5)	23 (57.5)	4 (19.0)	20 (50.0)	20 (50.0)
Listening patiently	12 (30.0)	28 (70.0)	0	27 (67.5)	13 (32.5)
Diverting	14 (35.0)	20 (50)	6 (15.0)	37 (92.5)	3 (7.5)
Neglecting	18 (45.0)	22 (55.0)	0	32 (80.0)	8 (20.0)
<i>Delusions and hallucinations</i>					
Showing no concern	19 (47.5)	21 (52.5)	0	28 (70.0)	12 (30.0)
Showing incredibility	22 (55.0)	16 (45.0)	0	25 (62.5)	15 (37.5)
Showing incredulity	21 (52.5)	19 (47.5)	0	32 (80.0)	8 (20.0)
Reprimanding	25 (62.5)	15 (37.5)	0	37 (92.5)	3 (7.5)
Distracting	18 (45.0)	15 (37.5)	7 (17.5)	0	
Negating	14 (35.0)	16 (40.0)	10 (25.0)	38 (95.0)	2 (5.0)
Reality testing	16 (40.0)	18 (45.0)	6 (15.0)	27 (67.5)	13 (32.5)

AP = Appropriate

NAP = Non-appropriate

NA = Not applicable

vention, the parents' average score was 7.6 for management of verbal behaviours and 13.5 for non-verbal behaviours. This observation indicates that the management skills of the parents before training were poor. This could be a warning sign for professionals dealing with schizophrenics.

After training the average score rose to 15.8 for management of patients' verbal behaviours and 22.3 for non-verbal behav-

iours. The change brought about in the families' skills could be attributed to the positive effect of the educational programme used. These observations are in line with Falloon's study that found that family education was accompanied by favourable treatment outcome of schizophrenics in the community [31]. The overall family score for both verbal and non-verbal behaviour increased from 62

Table 3 Distribution of parents' reactions to the non-verbal behaviours of their schizophrenic offspring

How do you handle your offspring in the situations given below?	Before training			After training	
	AP No. (%)	NAP No. (%)	NA No. (%)	AP No. (%)	NAP No. (%)
<i>Seclusion</i>					
Making separate arrangements at home	13 (32.5)	27 (67.5)	0	26 (65.0)	14 (35.0)
Segregating the patient	24 (60.0)	16 (40.0)	0	35 (87.5)	5 (12.5)
Excluding from social gatherings	20 (50.0)	20 (50.0)	0	32 (80.0)	8 (20.0)
Curtailling conversation	23 (57.5)	17 (42.5)	0	31 (77.5)	9 (22.5)
Encouraging outings	18 (45.0)	16 (40.0)	6 (15.0)	36 (90.0)	4 (10.0)
Encouraging social interaction	14 (35.0)	18 (45.0)	8 (20.0)	32 (80.0)	8 (20.0)
<i>Apathy</i>					
Leaving patient alone	14 (35.0)	26 (65.0)	0	32 (80.0)	8 (20.0)
Expressing emotions openly	12 (30.0)	23 (57.5)	5 (12.5)	32 (80.0)	8 (20.0)
Becoming indifferent	22 (55.0)	11 (27.5)	7 (17.5)	38 (95.0)	2 (5.0)
Training patient to express emotions appropriately	23 (57.5)	12 (30.0)	5 (12.5)	37 (92.5)	3 (7.5)
Encouraging appropriate expression of emotions	16 (40.0)	9 (22.5)	15 (37.5)	28 (70.0)	12 (30.0)
<i>Stereotyped behaviour</i>					
Controlling by force	13 (32.5)	21 (52.5)	6 (15.0)	19 (47.5)	21 (52.5)
Diverting	17 (42.5)	16 (40.0)	7 (17.5)	36 (90.0)	4 (10.0)
Segregating by force	21 (52.5)	19 (47.5)	0	21 (52.5)	19 (47.5)
Assigning different tasks	17 (42.5)	23 (57.5)	0	38 (95.0)	2 (5.0)
<i>Aggression</i>					
Quieting by force	18 (45.0)	14 (35.0)	8 (20.0)	22 (55.0)	18 (45.0)
Segregating	15 (37.5)	25 (62.5)	0	19 (47.5)	21 (52.5)
Facilitating the environment	30 (75.0)	10 (25.0)	0	40 (100.0)	0
Changing the environment	10 (25.0)	18 (45.0)	12 (30.0)	37 (92.5)	3 (7.5)
<i>Scepticism</i>					
Ignoring	16 (40.0)	24 (60.0)	0	27 (67.5)	13 (32.5)
Disapproving	30 (75.0)	10 (25.0)	0	37 (92.5)	3 (7.5)
Domineering	6 (15.0)	34 (85.0)	0	31 (77.5)	9 (22.5)
Domnating	6 (15.0)	15 (37.5)	19 (47.5)	24 (60.0)	14 (40.0)

Table 3 (continued)

How do you handle your offspring in the situations given below?	Before training			After training	
	AP No. (%)	NAP No. (%)	NA No. (%)	AP No. (%)	NAP No. (%)
<i>Slovenliness</i>					
Giving independence	12 (30.0)	28 (70.0)	0	21 (52.5)	19 (47.5)
Seeking cooperation	31 (77.5)	9 (22.5)	0	34 (85.0)	16 (15.0)
Doing everything for the patient	12 (30.0)	28 (70.0)	0	33 (82.5)	7 (17.5)
<i>Hypersexuality</i>					
Restraining patient	14 (35.0)	8 (20.0)	18 (45.0)	28 (70.0)	12 (30.0)
Moderating the environment	22 (55.0)	9 (22.5)	9 (22.5)	35 (87.5)	5 (12.5)
Getting patient married	8 (20.0)	26 (65.0)	6 (15.0)	14 (35.0)	26 (65.0)
Diverting	24 (60.0)	11 (27.5)	5 (12.5)	34 (85.5)	6 (15.0)

AP = Appropriate

NAP = Non-appropriate

NA = Not applicable

before training to 70.5 after training, indicating a change of 85% for the subjects.

Our findings complement those of Brooker, Birchwood et al., Fowler and Atwood who attributed attitude changes among families to family psychoeducational programmes [29,32-34]. They all strongly believe that family intervention and

family education complement the psychiatric treatment of schizophrenics and is followed by a better outcome. Observations made in our study have implications for community interventions for chronic psychiatric patients whose families are their primary caretakers.

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