



Expressed Emotion and Family Intervention in Chengdu

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Introduction

- Medication can not prevent relapse entirely
- In the West, less than 65% of patients with schizophrenia live with relatives. However, over 90% of patients with schizophrenia in China live with their family members (Xiang et al., 1994)
- Expressed emotion (EE) is an important predictive factor for the relapse of persons with schizophrenia
- Significant differences in levels of EE have been observed in various studies

Characteristics of Chinese Families

- Chinese are considered to be more conservative than Westerners in publicly displaying their emotions
- Familial bonds are much stronger in China than in Western countries
- Persons with mental disorders and their families have to face severe social stigma
- Compared with Western societies, Chinese families have to face more difficulties and stresses in caring for persons with mental disorders without support from the public health system

Characteristics of Chinese Families

- Families of persons with mental disorders often have no knowledge of mental illness and treatment
- Family members of people with mental disorders often have a strong feeling of shame and guilt about the illness and the ill family member
- 'Not spreading shameful news out of the family' (*Jia Chou Bu Wai Yang*, 家丑不外揚) often prevents the family from seeking help from outsiders or government agencies
- Many of families (30%-60%) would seek spiritual treatment (e.g., 'witch doctors') for the ill member

Xiang, Ran, Li, 1994



EE Study in Chengdu

- Subjects with schizophrenia from rural and urban areas of Chengdu (1995-1996): n=71
- Rural subjects (n=35, 49.3%): Xinle, Huaqiao, and Anxi townships of Xinjin county
- Urban subjects (n=36, 50.7%): Department of Psychiatry, Sichuan University
- **Inclusion criteria:** age 15-65, met ICD-10 schizophrenia diagnosis, living with family members for at least one year, face-to-face contact over 35 hours each week

Hou, Ran, Xiang, 1999; Ran, Leff, Hou, et al., 2003

EE Study in Chengdu

- **Instrument:** Chinese version of Camberwell Family Interview (CFI)
- **Other Instruments:** Chinese version of the Brief Psychiatric Rating Scale (BPRS), Social Disability Screening Schedule (SDSS), Relatives' Burden Schedule (RBS)
- **Interviewee:** key caregiver
- All interviews: audiotaped
- **High EE:** six or more critical comments (CCs), 1 or more on the hostility scale, or 3 or more on the emotional overinvolvement (EOI)

Results

- **Subjects:** N=71; Mean age: 36.1 (11.2) years; Duration of illness: 8.2 (7.2) years
- **Relatives of subjects:** N=71; Mean age: 51.2 (11.5) years
- High inter-rater reliabilities were found for the Chinese version of CFI



EE Studies in China

		N	CC	Hos (%)	EOI (%)	High EE (%)	Relapse Rate	
							High EE (%)	Low EE (%)
Vaughn & Leff, 1976	London	37	8.4	18.0	36.0	54.0	50.0	12.0
Wig et al, 1987	Chandigarh	78	1.83	16.0	4.0	23.0	31.0	9.0
Phillips & Xiong, 1995	China	61	3.64	11.5	19.7	42.1	53.4	41.7
Ran et al, 1998	China	71	3.90	15.5	8.5	28.2		

Cultural Differences

- The level of EE is particularly low in India and quite low in China (e.g., Chengdu)
- The level of EE can predict the relapse in many countries
- Relatives in Chengdu expressed significantly less emotional overinvolvement (EOI) than respondents in other similar studies in the West
- High critical comment was a better predictor of relapse than EOI in Western countries
- High EOI might be an important predictor of relapse than CC in China

Distribution of EE Components Among Relatives in Chengdu

	Urban (Pt=36, Rel=36)	Rural (Pt=35, Rel=35)	<i>p</i>
Mean number (SD) of critical comments	4.19 (2.64)	3.66 (2.30)	>0.05
Proportion of relatives showing hostility	19.4%	11.4%	>0.05
Proportion of parents showing overinvolvement	16.7%	0	<0.05
Mean score (SD) on warmth	3.03 (1.54)	1.32 (1.03)	<0.001
Mean number (SD) of positive remarks	2.81 (1.77)	0.60 (0.69)	<0.001
Proportion of relatives classed as High-EE	33.3%	22.9%	>0.05
Proportion of hostile relatives with low criticism	14.3%	25.0%	
Correlation between warmth and critical comments	- 0.25	- 0.28	>0.05

Distribution of EE Components among Relatives of Chengdu, London, and Chandigarh

	Chengdu	London	Chandigarh (India)
Mean number of critical comments	3.93	8.4	1.9
Proportion of relatives showing hostility	15.5%	18%	16%
Proportion of parents showing overinvolvement	8.5%	36%	4%
Mean score on warmth	2.14	2.3	2.0
Mean number of positive remarks	1.72	2.6	0.8
Proportion of relatives classed as high-EE	28.2%	54%	23%
Proportion of hostile relatives with low criticism	18.2%	0%	29%
Correlation of warmth with critical comments	- 0.23	- 0.44	0.10

Vaughn & Leff, 1976; Wig et al., 1987; Leff et al., 1982; Hou et al., 1999; Ran et al., 2003

Implication

- The results of this study could indicate the impact of cultural and ethnic differences and geographical location on EE
- EE is not a way to blame families of persons with mental disorders
- EE puts a moral imperative on treatment agents to support families better
- Psychosocial intervention focusing on relatives' EE may be crucial for improving prognosis of the illness

Importance of Family Intervention in China

- Family is the functional unit of society as well as the central role families have in caring for members with mental disorders
- More than 90% of people suffering from mental illness are cared for by their families at home
- Family members, primary caregivers, have no support from public health care system
- Families have severe burden in caring for relatives with mental disorders
- Medication can not control relapse of mental illness such as 30% - 40% of persons with schizophrenia still relapse when on medication

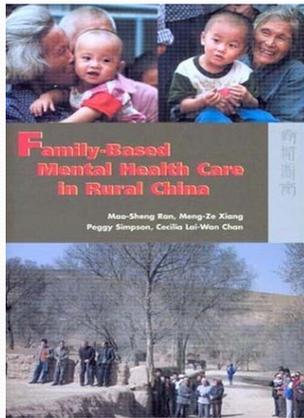
(Xiang, Ran, & Li, 1994; Ran et al., 2001)

Psychosocial Family Intervention

- Family intervention, including family psychoeducation and behavioral family therapy
- Social skills training
- Support in coping with residual psychotic symptoms
- Cognitive rehabilitation

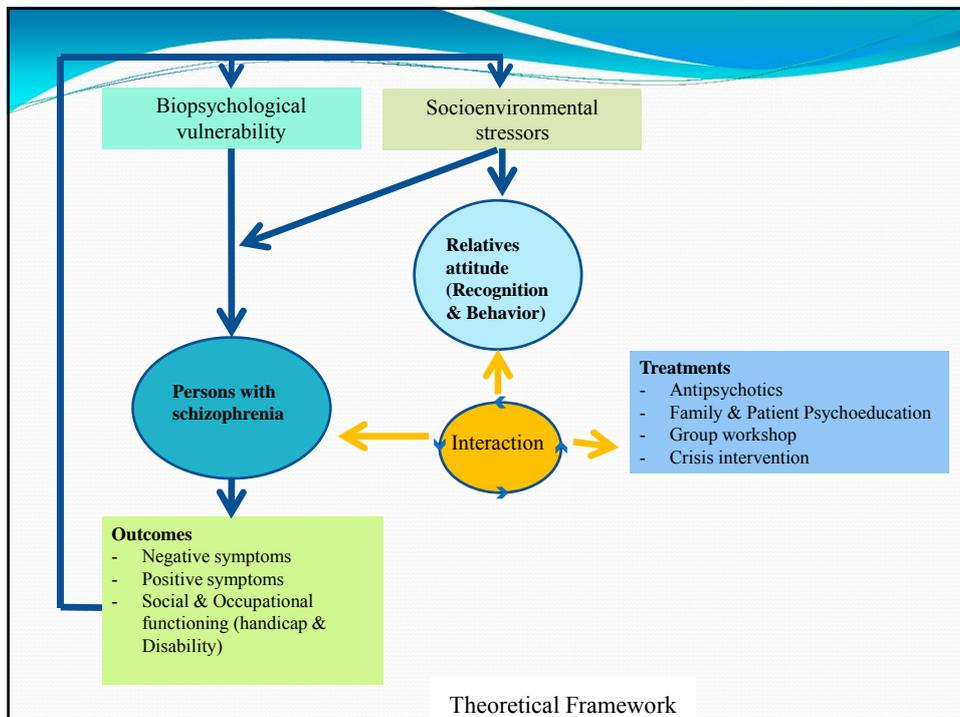
Penn & Mueser, 1996; Ran et al., 2005

Psychoeducational Intervention for Rural Chinese Families Experiencing Schizophrenia in Chengdu



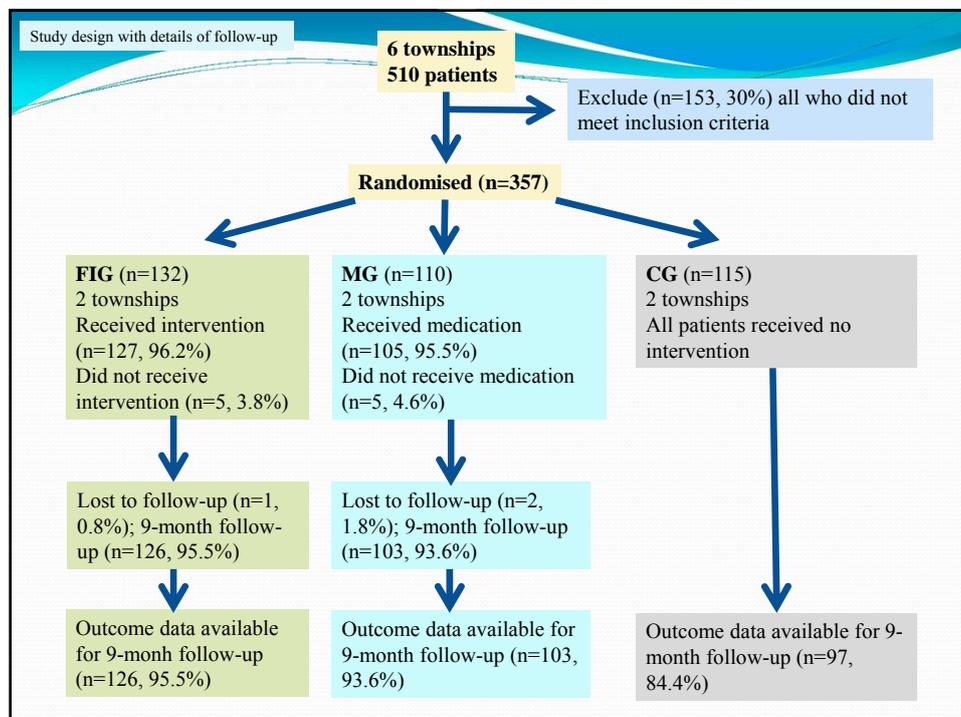
A Randomised Controlled Trial

Ran MS, Xiang MZ, Huang MS, et al. (2001). Chinese Journal of Psychiatry, 34(2), 98-101.
 Ran MS, Xiang MZ, Chan CLW, et al. (2003). Social Psychiatry and Psychiatric Epidemiology, 38, 69-75.
 Ran MS, Xiang MZ, Simpson P, Chan CLW. (2005). University of Hong Kong Press.



Psychoeducational Family Intervention

- **Purpose:** To provide specific advice, support, and information to the family
- **Inclusion Criteria:** 1) Schizophrenia Diagnosis Criteria: ICD-10, CCMD-2-R; 2) Age: Over 15 years old; 3) Household: Lived with relatives
- **Method:** (Psychiatrists, nurses, & village doctors)
 - * Family session: Once a month, 1.5-3 hours
 - * Multiple family workshops: Once 3 months
 - * Crisis intervention
 - * Village Broadcast



Drug Treatment

- Long-term injection or oral depot
 - * Haloperidol decanoate: (50mg - 125mg/month)
 - * Penfluridol: (20 - 40mg/week)



Measurement

- Psychosis Screening Schedule (PSS)
- Psychotic Diagnosis and Record Schedule
- The Present State Examination (PSE-9, Chinese version)
- The Social Disability Screening Schedule (SDSS)
- Relatives' Investigation Schedule (suppl.)
- Relatives' Beliefs Scale



Demographic and Clinical Characteristics of Patients before Intervention				
	Intervention group (n=126)	Drug group (n=103)	Control group (n=97)	P
Sex				>0.05
Male	44 (34.9)	48 (46.6)	36 (37.1)	
Female	82 (65.1)	55 (53.4)	61 (62.9)	
Mean age (year)	43.5 ±14.3	42.4±14.7	44.8 ±13.8	>0.05*
Education				>0.05
Illiteracy	21 (16.6)	17 (16.5)	19 (19.6)	
Primary school	66 (52.4)	56 (54.4)	51 (52.6)	
Middle school	34 (27.0)	23 (22.3)	23 (23.7)	
≥ high school	5 (4.0)	7 (6.8)	4 (4.1)	
Marriage				>0.05
Unmarried	16 (12.7)	20 (19.4)	19 (19.6)	
Married	91 (72.2)	68 (66.0)	72 (74.2)	
Duration of illness (year)	11.6 ±9.5	10.6 ±9.6	12.3 ±8.4	>0.05*
Clinical status				>0.05
Improvement	61 (48.4)	47 (45.6)	46 (47.4)	
Severe symptom/deterioration	65 (51.6)	56 (54.4)	51 (52.6)	

(%), * ANOVA, all other is χ^2 test

The Characteristics of Relatives in Three Groups before Intervention				
	Intervention group (n=126)	Drug group (n=103)	Control group (n=97)	p
Sex				>0.05
Male	76 (60.3)	57 (55.3)	61 (62.9)	
Female	50 (39.7)	46 (44.7)	36 (37.1)	
Mean age (year)	47.1 ±13.2	45.1 ±13.1	49.2 ±15.3	>0.05*
Relation				>0.05
Parent	37 (29.4)	31 (30.1)	29 (29.9)	
Spouse	69 (54.7)	53 (51.5)	53 (54.6)	
Other	20 (15.9)	19 (18.4)	15 (15.5)	
Type of family				>0.05
Nuclear	76 (60.3)	61 (59.2)	68 (70.1)	
Middle	31 (24.6)	20 (19.4)	12 (12.4)	
Extended	19 (15.1)	22 (21.4)	17 (17.5)	
No. of family Members	3.7 ±1.2	3.7 ±1.4	3.6±1.5	>0.05*

(%), * ANOVA, all other is χ^2 test

The Effectiveness of Patients after Intervention (9 months)				
	Intervention group (n=126)	Drug group (n=103)	Control group (n=97)	p
Treatment compliance				<0.001
Maintained regular treatment	44 (34.9)	33 (32.0)	5 (5.2)	
Irregular/discontinued treatment	79 (62.7)	42 (40.8)	44 (45.3)	
Never or refused treatment	3 (2.4)	28 (27.2)	48 (49.5)	
Clinical status				<0.05
Full recovery	53 (42.1)	38 (36.9)	22 (22.7)	
Significant improvement	40 (31.7)	27 (26.2)	23 (23.7)	
Severe symptom/deterioration	33 (26.2)	38 (36.9)	52 (53.6)	
Relapse rate (%)	16.3	37.8	61.5	<0.05
Ability to work				>0.05
Full-time	73 (57.9)	65 (63.1)	53 (54.6)	
Part-time	41 (32.6)	30 (29.1)	29 (29.9)	
No ability	12 (9.5)	8 (7.8)	15 (15.5)	
Mental disability				>0.05
Mild	23 (18.3)	17 (16.5)	20 (20.6)	
Moderate	10 (7.9)	4 (3.9)	14 (14.4)	
Serious	15 (11.9)	10 (9.7)	9 (9.3)	
Most serious	25 (19.8)	21 (20.4)	15 (15.5)	

(%), all is χ^2 test

The Change of Relatives' Beliefs on Illness after Intervention (9-month)			
	Intervention group (n=93)	Drug group (n=75)	p
Mental illness is a thought problem	54 (58.1)	57 (76.0)	<0.05
Mental illness is caused by ghost	14 (15.0)	26 (34.7)	<0.01
Mental illness can be treated	81 (87.1)	4 (58.7)	<0.01
Mental illness is worth being treated	57 (61.3)	41 (54.7)	>0.05
Long-term treatment is necessary	65 (69.9)	40 (53.3)	<0.05
Knowing drug side effect	48 (51.6)	20 (26.7)	<0.01
Relapse can be prevented by decreasing stress	69 (74.2)	49 (65.3)	>0.05
To repulse the psychotic patient	48 (51.6)	52 (69.3)	<0.05

(%), all is χ^2 test

Multiple Regression Analysis of Clinical Outcome

	Clinical outcome (before intervention)		Clinical outcome (9-month follow-up)	
	Coefficient (β)	Significance level	Coefficient (β)	Significance level
Age	0.13	0.16	0.07	0.6
Age of onset	-0.11	0.20	-0.02	0.86
Duration of illness	-0.05	0.46	-0.04	0.69
Education level score	-0.03	0.60	-0.02	0.75
Family economic level	0.04	0.35	0.02	0.69
Antipsychotic drug treatment	0.07	0.15	0.10	0.047*
Families' attitude toward patients	0.01	0.83	0.11	0.014*
Disability level scale	0.61	0.0001*	0.62	0.0001*

* Significant results

Effects of Psychosocial Family Intervention

- Patients' mental state (e.g. psychotic symptom, relapse)
- Patients' social and work functioning
- Family atmosphere
- Relatives' burden and distress
- Knowledge gain
- Engagement and maintenance in treatment
- Cost-effective of family intervention



Ran et al, SPPE, 2003; Ran et al, 2005

Critical Issues in the Psychoeducational Intervention

- Cooperative relationship with families
- Integration of the psychotic experience
- Recognition of illness vulnerability
- Foundation of psychotropic medication for symptom control
- Enhancing social and coping skills
- Distinguishing patient's personality from disorder

Suggestion

- Psychoeducational family intervention should be modified according to various cultural context
- Psychoeducational family intervention should be commonly conducted in community mental health services
- The interactive model is essential to these samples in rural China
- Psychoeducational family intervention should become a more integral part of mental health services systems

- The highly trained village doctors should be suitable for conducting family intervention in Chinese rural communities
- Specific family intervention should be combined with other rehabilitation packages in community mental health care
- Long-term and intensive family intervention should be highlighted

The results of 10-year and 14-year follow-up of this family intervention will be expected

Limitations

- Measurements should include more items concerning relatives and patients
- The follow-up should be conducted over a longer period
- The effectiveness of family sessions, multiple family workshop, and crisis intervention can not be distinguished

