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Community-Based Psychiatric Rehabilitation in Shanghai

Facilities, Services, Outcome, and Culture-Specific Characteristics

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This paper describes the community mental health services in Shanghai, analyses the effectiveness of these services, and discusses their culture-specific characteristics. It reports on a prospective, matched-control study of the three most important types of service: a community follow-up programme in psychiatric out-patient clinics at primary-level general hospitals, 'guardianship networks' operated by non-professional volunteers, and work therapy stations. In total 308 pairs of subjects completed the study. Using Chinese versions of the Disability Assessment Schedule to assess impairment in psychosocial functioning and the Present State Examination to assess the levels of positive and negative symptoms, ten blind evaluators who had excellent inter-rater reliability assessed the functioning of subjects at enrolment and every six months for the next two years. Over the two years, symptoms and social functioning improved in the treatment groups and deteriorated in the control groups. Thus these community psychiatric services have the dual benefit of promoting rehabilitation and preventing psychosocial deterioration.

A retrospective survey (Zhang *et al*, 1987) of the community mental health services in Shanghai conducted in 1986 showed that these services improved therapeutic outcome, increased patients' compliance with medication, decreased hospital readmission rates, and promoted the rehabilitation of patients' psychosocial functioning. To obtain a more accurate assessment of these services, we undertook a prospective, controlled study from 1987 to 1989 of the three main types of service: community follow-up, guardianship networks, and work therapy stations. This paper describes the range of community mental health services provided in Shanghai (the 'Shanghai model' of community care), reports on the results of the two-year study of the efficacy of the services, and comments on the culture-specific characteristics of the services.

The 'Shanghai model' of community care

Shanghai is the largest city in China and one of the largest cities in the world. The Shanghai metropolitan district, a separate administrative unit directly under the authority of the central Chinese government, has an area of 6340 km^2 and its population (1990) is almost 13 million. The metropolis includes 12 urban districts with a population of eight million (10 700/km^2) and nine rural counties with a population of five million (900/km^2). Urban districts are administratively subdivided into 132 'streets' and further subdivided into 2783 'lanes'; the rural counties are subdivided into 230 townships and further subdivided into 3461 villages. (Hereafter, 'city' refers to the greater metropolis, including urban districts and rural counties, 'districts' refers to both districts and counties, 'streets' refers to both street and township administrative units, and 'lanes' refers to both lanes and villages.)

A community-based survey done in 1982 (Qu & Xu, 1986) found that 1.28% of the Shanghai population had serious mental disorders; the urban rate was 1.54% and the rural rate 0.85%. The prevalence of schizophrenia was 7.1 per 1000 (urban 9.3 per 1000; rural 3.6 per 1000) and that of moderate to severe mental retardation was 2.0 per 1000 (urban 1.9 per 1000; rural 2.1 per 1000). (In China, services for persons with mental retardation and psychiatric illnesses are often combined; statistics of 'mental disorders' usually combine both types of individuals.)

Mental health services for the city are organised and co-ordinated by a government-appointed leadership group that is composed of administrators from the three departments most concerned with the mentally ill: Public Health, Civil Affairs (welfare), and Public Security. Groups of mental health specialists at the municipal and district levels are assigned responsibility for the provision and evaluation of services. Six hundred psychiatrists and 1800 other mental health workers provide services for the more than 160 000 seriously mentally disabled individuals in the city. At present, Shanghai has a total of 8500 psychiatric beds in approximately 50 mental health institutions; about three-quarters of these institutions are owned and operated by the municipality or by districts, the remainder are owned and operated by local collectives or private

individuals. Shanghai has the best mental health worker/patient and psychiatric bed/patient ratios in China, but they are still far from sufficient to provide adequate services to this huge number of patients.

The vast majority of mentally disabled individuals live with their families in the community. Some of them receive treatment from community-based psychiatric services. Shanghai started community services for the mentally ill in 1958; at first the emphasis was on the management and follow-up care of patients discharged from hospital, but in the last ten years community-based services have focused on the rehabilitation of their clients (Zhang & Yan, 1990; Xia, 1985), most of whom are schizophrenic patients or mentally retarded individuals. At present, the community mental health network provides services to approximately 60 000 individuals (38% of all seriously mentally disabled persons). The different types of service provided are described below.

Community follow-up programme

Follow-up psychiatric services are provided by 99% of the 341 primary-level (i.e. street or township) hospitals. These services are provided by non-psychiatric physicians who receive 3–6 months of psychiatric training and then work as part-time psychiatrists. Most of the clients are chronically ill patients who are clinically stable but need to take maintenance medication. Most patients registered in the out-patient clinics are seen on a monthly basis; if they do not show up the doctor is required by the regional mental health regulations to visit the patient's home in the next month and help resolve any outstanding problems. Patients who have been stable for a prolonged period are seen once every three months. When patients are seen in the out-patient department, the main focus is on monitoring their medication and educating them and their family members about the appropriate use of medication. In 1989 there were 58 386 patients registered in the programme; during the year they made 196 885 clinic visits and clinicians made 155 013 home visits.

Guardianship networks

Guardianship networks are community-based organisations composed of 20–30 public-spirited retired workers, patients' neighbours, and community officials that supervise the care for a similar number of patients in their community. These networks have already been established in 3630 of the lane committees (smallest administrative units) throughout the city. As of 1989 there were in total 52 484 community members participating in these networks, supervising 51 232 clients; they made a total of 234 698 home visits over the year. Most of the patients involved also receive medical follow-up in a primary hospital's psychiatric out-patient department (i.e. the community follow-up programme). The establishment of guardianship networks is one of the criteria the city government uses to assess the quality of a locality's community services, so when psychiatrists visit a locality and recommend setting up a network, local leaders usually support the proposal. In most cases officials from the lane committee appoint community members – who are not paid – to the network. These networks provide help and support to the patients and their families, ensure that patients get treatment and take their medication, and carry out public education about mental illnesses in the community. In some networks there are one or two identified guardians for each patient; in other networks the guardians collectively supervise all the patients in the locality. Doctors from the county or street hospitals meet with the most active members of each network (usually five or six people) on a monthly basis to discuss the status of all the patients under the supervision of the network and to make recommendations for the management of problematic patients. In an emergency, network members can take the patient to the local hospital, where they know the clinician who runs the psychiatric out-patient clinic.

Work therapy stations

The community welfare departments of the local offices of the Ministry of Civil Affairs administer 141 rehabilitation workshops, most of which are located in urban areas. In 1989, 3870 clients were enrolled in these stations; 2567 (66%) of these were mentally retarded and 861 (22%) were schizophrenic. The number of clients per station ranges from 8 to 90 (mean 27). These rehabilitative services are managed by community administrators, retired workers and non-psychiatric health workers. The welfare department of the urban district's government usually provides the start-up funds for the station, provides the salary for the station director (a government official), and registers the station as a welfare enterprise which allows it to operate on a tax-free basis. The clients' income depends on the economic value of the products produced by the station. The primary beneficiaries are mentally disabled clients who have no regular employment but are still able to participate in productive labour. They usually work for six hours a day, six days a week.

Most of the work is secondary processing provided to the stations by local factories (e.g. packaging of consumer products, removing defective specimens from lots of nuts and bolts, and assembling the parts for paper staplers). Occupational therapy is combined with medical treatment, recreational activities, and psychosocial education. Full-time or part-time doctors (some of whom are former 'barefoot' doctors) affiliated with the stations supervise the medication of the clients; the registration card and medical record of a patient who receives treatment in the community follow-up programme are transferred to the station when the patient starts working in the station.

Mental health services in factories

Large and medium-sized enterprises in China are, in many respects, like communities because a large proportion of the work-force lives in housing on the factory premises. These factories have health clinics, and some larger factories have their own on-site hospitals. Doctors from some of the factory clinics are sent to get speciality training in psychiatry; after this training they return to the factory to open speciality out-patient clinics, provide follow-up services on the workshop floor, make home visits, set up rehabilitation workshops in the factory, and establish guardianship networks. To date, 924 factories have established these types of service. In 1989 these factory-based clinicians made 21 089 follow-up visits and 6389 home visits to 8486 mentally ill patients.

Day hospitals

There are three day hospitals – where patients receive treatment during the day and return home at night – with a total of 100 'beds'. These establishments are attached to regular psychiatric hospitals.

Night hospital

Some families are unable or unwilling to care for their ill family member even when he or she is clinically stable, and some patients have no family. One night hospital with nine beds attached to a regular psychiatric hospital provides services to these patients. They work during the day and return to the hospital at night.

Family support group

A recent development in one street in Shanghai is a self-help group of patients' family members that meets each month to hold classes and discussions about mental illness. The major aim of the group is to provide psychosocial support to the families of patients and to teach them how to help in patients' rehabilitation.

Method

Four treatment groups – schizophrenic patients in guardianship networks, schizophrenic patients in work therapy stations, mentally retarded patients in work therapy stations, and schizophrenic patients in the community follow-up programme – were compared with matched control groups. Subjects enrolled in the study were living in eight local communities ('streets') from two urban districts that were planning to establish work therapy stations and guardianship networks. These eight streets were relatively new neighbourhoods in which the mean family income was similar to the average household income for Shanghai. Group membership was established in the following manner.

For the guardianship network subtrial, lists were made of all schizophrenic patients living in the eight communities who were more than 18 years old and who were currently working or enrolled in a work therapy station. The lists were then subdivided into pairs matched for sex, age group (18–29, 30–44, 45 and over) and duration of illness (in five-year intervals). There was no systematic method of determining the order of subjects within the pairs. In total, 102 pairs of subjects were identified. When the guardianship network was established, the first member of each pair was enrolled in the network and the second member became the corresponding control subject.

For the work therapy station subtrial, lists were made of all residents in each of the eight communities who were potential clients for the services. They included (a) subjects aged 18–59 with moderately severe mental retardation but without any movement disorders who had no regular employment and (b) schizophrenic subjects aged 18–59 who had no regular employment but who maintained some ability to work. Each list was then divided into pairs of subjects matched for diagnosis (mental retardation or schizophrenia), sex, age group, and duration of illness. There was no systematic method of determining the order of subjects within the pairs. In total, 76 matched pairs of mentally retarded patients and 79 matched pairs of schizophrenic patients were identified. Once the work therapy stations were established, the first member of each pair was assigned to the work station, and the second member of the pair became the corresponding control subject.

For the community follow-up programme subtrial, schizophrenic patients over 18 years of age who were not working, who were not enrolled in a guardianship network or a work therapy station, and who were registered with the community follow-up clinics in the eight local (general) hospitals were matched 1:1 for sex, age group, and duration of illness with similar subjects who were not registered with the local community follow-up clinic. In this subtrial, unlike the other subtrials, the treatment-group subjects

were not an inception cohort – they had already been participating in the community follow-up programme for varying lengths of time at the time of enrolment in the study. In total, 71 matched pairs were identified.

Prior to enrolment and at six-month intervals for two years after enrolment, patients' social functioning was evaluated using the social role functioning section of the World Health Organization's Social Disability Schedule (DAS) (1988), and schizophrenic symptomatology was evaluated using the Present State Examination (PSE) (Shen & Wang, 1985). Ten psychiatrists and psychiatric nurses participated in the evaluations. Before the study started they received one week of training and their inter-rater reliability was assessed by having them concurrently assess (but independently code) the DAS and PSE for ten schizophrenic subjects; their inter-rater reliability was excellent (ICC = 0.90 for DAS, ICC = 0.89 for the PSE overall score, and kappa = 0.54–0.92 for individual PSE items). All ratings during the study were done blind; that is, the rater did not know if the patient being rated was in the treatment or control group.

Results

In total there were 328 pairs of subjects, of whom 308 pairs (94%) completed the two-year study. The breakdown of the completion rates is as follows: 66 pairs (93%) of schizophrenic patients in the community follow-up subtrial; 98 pairs (96%) of schizophrenic patients in the guardianship network subtrial; and 72 pairs (91%) of schizophrenic patients and 72 pairs (95%) of mentally retarded subjects in the work therapy subtrial. The 20 pairs (6%) of non-completers were fairly evenly distributed between groups; in most cases the drop-out occurred because one of the subjects in the pair moved away during the two-year study. The characteristics of the subjects who completed the study are presented in Table 1.

Table 2 presents the social functioning outcome – as assessed by DAS – for the various groups. There were no significant differences between treatment groups and their respective control groups in the overall DAS score on entry into the study. After two years, the social functioning of subjects in the treatment groups was better than that of subjects in the corresponding control groups, the differences being statistically significant except in the community follow-up subtrial. The social functioning of treatment-group subjects improved over the two-year intervention and the social functioning of the corresponding control-group subjects deteriorated over the same period, these changes being significant except for the mentally retarded patients in the work therapy station subtrial and the schizophrenic patients in the community follow-up trial.

The PSE results for the schizophrenic patients are presented in Table 3. The total score for the PSE schizophrenia items is subdivided into a score for positive symptoms (the total score for the items about hallucinations, delusions, thought disorder, and bizarre behaviour) and a score for negative symptoms (the total score for the items about flat affect, social withdrawal, lack of motivation, and poverty of speech). With the exception of the overall symptom score for all schizophrenic subjects combined (in which the treatment-group subjects had more severe

Table 1
Characteristics of the 616 patients who completed the two-year study

	Schizophrenic patients								Retarded patients	
	Work therapy stations		Guardianship network		Community follow-up		All schizophrenic patients		Work therapy stations	
	Experimental	Control	Experimental	Control	Experimental	Control	Experimental	Control	Experimental	Control
Number of patients	72	72	98	98	66	66	236	236	72	72
Sex										
% male	44.4	44.4	66.3	66.3	45.5	45.5	55.5	55.5	48.6	48.6
% female	55.6	55.6	33.7	33.7	54.5	54.5	44.5	44.5	51.4	51.4
Age (years)										
mean	31.8	32.6	35.1	34.3	42.0	42.6	36.0	36.2	28.9	28.6
s.d.	7.4	7.7	8.0	8.3	9.8	8.9	8.4	8.3	5.5	4.2
Marital status										
% married	19.4	18.0	38.8	43.9	43.9	45.4	33.9	36.5	2.8	4.2
% never married	79.4	77.8	59.2	53.1	50.0	48.5	63.1	59.3	97.2	95.8
% divorced/widowed	1.4	4.2	2.0	3.0	6.1	6.1	3.0	4.2	0.0	0.0
Years of schooling										
% with 6 years or less	5.6	4.2	4.1	4.1	13.6	15.2	7.2	7.2	100.0	100.0
% with 7 years or more	94.4	95.8	95.9	95.9	86.4	84.8	92.8	92.8	0.0	0.0
Duration of illness (years)										
mean	9.2	8.8	7.9	8.2	11.4	10.0	9.3	8.9	24.3	23.8
s.d.	4.4	4.6	4.5	4.7	5.0	5.1	4.8	5.0	4.5	4.7

All comparisons between the experimental and control groups with χ^2 or t-test were not statistically significant (all P values >0.05).

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Table 2
Mean (s.d.) DAS overall scores at entry and after two years in treatment and control groups

	Experimental group	Control group	*t*-value, experimental v. control
Mentally retarded patients			
Work therapy stations ($n=72$)			
At enrolment	22.1 (10.1)	23.3 (10.1)	0.97
After 2 years	20.5 (9.6)	24.8 (9.4)	2.88**
t-value, before v. after	0.97	−0.92	
Schizophrenic patients			
Work therapy stations ($n=72$)			
At enrolment	15.9 (7.5)	17.4 (8.7)	1.11
After 2 years	12.9 (6.3)	21.9 (9.8)	6.51**
t-value, before v. after	2.60**	−2.91**	
Guardianship networks ($n=98$)			
At enrolment	10.4 (5.1)	10.5 (5.2)	0.14
After 2 years	6.4 (3.2)	16.7 (8.4)	11.29**
t-value, before v. after	6.58**	−6.21**	
Community follow-up ($n=66$)			
At enrolment	17.8 (8.9)	15.4 (9.0)	−1.54
After 2 years	16.3 (8.0)	17.1 (9.4)	0.54
t-value, before v. after	1.02	−1.06	
All schizophrenic patients ($n=236$)			
At enrolment	14.2 (7.2)	14.0 (7.6)	−0.29
After 2 years	11.2 (5.9)	18.4 (9.1)	10.27**
t-value, before v. after	4.95**	−5.70**	

**$P<0.01$.

symptoms than control-group subjects), none of the comparisons between treatment and control groups showed significant differences in symptom scores at the time of enrolment. At the conclusion of the study, the overall PSE symptom scores were significantly better for the treatment groups than for the corresponding control groups. The positive-symptom and negative-symptom scores were also better for all of the treatment groups than for the corresponding control groups, the improvement being statistically significant except in the community follow-up subtrial. In almost all cases the symptoms improved in the treatment groups and got worse in the control groups over the two years of the study.

Hospital readmission rates for the schizophrenic patients were lower in the treatment groups than in the control groups. Among the 72 schizophrenic patients attending work therapy stations, two (2.8%) were readmitted on a total of two occasions over the two-year study period (1.4 readmissions per 100 person-years); in the corresponding control group, seven patients (9.7%) were readmitted in total ten times (6.9 readmissions per 100 person-years). Among the 98 patients in the guardianship networks, four (4.1%) were readmitted in total six times (3.1 readmissions per 100 person-years); in the corresponding control group, ten patients (10.2%) were readmitted in total fourteen times (7.1 readmissions per 100 person-years). Among the 66 patients in the community follow-up programme, seven (10.6%) were readmitted in total eight times (6.1 readmissions per 100 person-years); in the corresponding control group, eleven patients (16.7%) were readmitted in total fourteen times (10.6 readmissions per 100 person-years). Given the small numbers of readmissions in each subtrial, none of these differences reached statistical significance; but when all three treatment subtrials are combined there is a statistical difference. Of the 236 treatment-group schizophrenic patients, 13 (5.5%) were readmitted in total 16 times over the two-year study period (3.4 readmissions per 100 person-years), while 28 of the corresponding control-group patients (11.9%) were readmitted in total 38 times (8.1 readmissions per 100 person-years) (paired $\chi^2=4.78$, $P<0.05$).

Discussion

These results provide strong evidence for the benefits of work therapy stations and guardianship networks. Subjects were enrolled at the time of initiation of the services in their communities and were matched for diagnosis, sex, age, and duration of illness with corresponding control subjects. The assignment to treatment and control groups was not strictly randomised, but it is unlikely that there was any systematic bias in group assignment. And the evaluation of outcome was performed blindly

Table 3
Mean (s.d.) PSE overall scores, positive symptoms scores, and negative symptoms scores in schizophrenic subjects at entry and after two years in treatment and control groups

	Experimental group	Control group	*t*-value, experimental v. control
Work therapy stations (n = 72)			
Positive symptoms			
At enrolment	1.72 (0.80)	1.66 (0.83)	−0.44
After 2 years	1.57 (0.70)	2.01 (0.95)	3.16**
t-value, before v. after	1.19	−2.35*	
Negative symptoms			
At enrolment	2.78 (1.10)	2.63 (0.99)	−0.86
After 2 years	2.46 (1.03)	3.20 (1.17)	4.03**
t-value, before v. after	1.80	−3.16**	
Overall symptoms			
At enrolment	4.50 (0.96)	4.29 (0.91)	−1.35
After 2 years	4.03 (0.88)	5.21 (1.07)	7.24**
t-value, before v. after	3.06**	−5.56**	
Guardianship networks (n = 98)			
Positive symptoms			
At enrolment	0.74 (0.27)	0.80 (0.39)	1.25
After 2 years	0.20 (0.22)	1.22 (0.59)	16.04**
t-value, before v. after	15.35**	−5.88**	
Negative symptoms			
At enrolment	1.26 (0.43)	1.15 (0.55)	−1.56
After 2 years	0.84 (0.39)	1.70 (0.88)	8.85**
t-value, before v. after	7.16**	−5.25**	
Overall symptoms			
At enrolment	2.00 (0.36)	1.95 (0.50)	−0.80
After 2 years	1.04 (0.32)	2.92 (0.75)	22.82**
t-value, before v. after	19.73**	−10.65**	
Community follow-up (n = 66)			
Positive symptoms			
At enrolment	1.79 (0.77)	1.60 (0.79)	−1.40
After 2 years	1.30 (0.60)	1.45 (0.67)	1.36
t-value, before v. after	4.08**	1.18	
Negative symptoms			
At enrolment	2.16 (1.01)	2.08 (1.02)	−0.45
After 2 years	2.11 (0.98)	2.45 (1.08)	1.89
t-value, before v. after	0.29	−2.02*	
Overall symptoms			
At enrolment	3.95 (0.90)	3.68 (0.91)	−1.71
After 2 years	3.41 (0.82)	3.90 (0.90)	3.29**
t-value, before v. after	3.60**	−1.40	
All schizophrenic patients (n = 236)			
Positive symptoms			
At enrolment	1.36 (0.60)	1.29 (0.61)	−1.26
After 2 years	0.92 (0.46)	1.52 (0.65)	11.58**
t-value, before v. after	8.94**	−3.96**	
Negative symptoms			
At enrolment	1.98 (0.71)	1.86 (0.76)	−1.77
After 2 years	1.68 (0.75)	2.37 (1.00)	8.48**
t-value, before v. after	4.46**	−6.24**	
Overall symptoms			
At enrolment	3.34 (0.66)	3.15 (0.69)	−3.06**
After 2 years	2.60 (0.62)	3.89 (0.84)	10.46**
t-value, before v. after	12.55**	−10.46**	

*$P<0.05$, **$P<0.01$.

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by evaluators who had achieved satisfactory inter-rater reliability. The significantly better social functioning and significantly less severe symptomatology of treatment-group subjects compared with control-group subjects at the end of the study clearly demonstrate the efficacy of these interventions. Among patients receiving these services, social functioning and level of symptoms improved, while among those not receiving them, social functioning and level of symptoms deteriorated. Thus community services both promote rehabilitation and prevent psychosocial deterioration.

There was no clear improvement in the social functioning of patients enrolled in the community follow-up programme, and their improvement in symptomatology was much less marked than that of patients in the work therapy stations and guardianship networks. Part of the reason for this difference may be that the evaluation of the community follow-up programme was organised somewhat differently. It was a cohort study that compared persons currently enrolled in the community follow-up programme with those not enrolled in the programme. It is possible that patients in the follow-up programme had obtained maximum benefit from the programme before the evaluation period started and so – in the absence of additional intervention such as work therapy – no further improvement could be expected. It is also possible that a few of the control subjects received out-patient services elsewhere (that is, in other communities), thus decreasing the differences between the treatment and control groups.

Another important issue is whether or not community services for schizophrenic patients have differential effects on positive and negative symptoms. Formal assessment of positive and negative symptoms with symptom-specific scales was impractical given the size of our study, but as proxy measures we subdivided the PSE schizophrenia items into positive and negative subscales. Using these measures, there was no differential effect of work therapy stations or guardianship networks on the positive and negative symptoms of schizophrenia; thus these treatment methods address the general psychopathology of schizophrenia – their effects on positive and negative symptoms are similar. The community follow-up programme was more effective for positive symptoms than for negative symptoms; but the corresponding control group also showed improvement in positive symptoms and deterioration in negative symptoms, so this effect may be a characteristic of the subjects in this subtrial rather than of the community follow-up programme itself. Ongoing and detailed assessment of changes in positive and negative symptoms in schizophrenic patients enrolled in different types of community services is warranted.

Limitations of the study

There are potential confounders that need to be considered. Schizophrenic subjects in the work therapy stations all received follow-up psychiatric care as part of the package of services provided at the station, and patients enrolled in the guardianship networks were frequently encouraged to obtain out-patient treatment, but only some of the subjects in the corresponding control groups received out-patient psychiatric services (those who were already enrolled in out-patient services prior to group assignment). The relatively good outcome for those enrolled in the work therapy stations and in the guardianship networks could, therefore, be due to the different rates of follow-up psychiatric care and not due to the unique effects of the work therapy or the guardianship network. Given the relatively poor outcome for the community follow-up programme, however, it is unlikely that psychiatric follow-up care is the most important component of the work therapy stations or the guardianship networks.

We do not have detailed information on the medication usage of each patient in the study, but we estimate that about 95% of the schizophrenic patients in the treatment groups and about 70% of the schizophrenic patients in the control groups took medication regularly. Increased compliance with medication is, presumably, one of the benefits of community mental health services. An important question is whether or not the improvement in outcome seen with these community services was due solely to the increased drug compliance. That is, do the services have an additional effect beyond that produced by regular medication usage? Stratified analysis of the effect of community services on patients who do and do not take medication regularly are needed to address this issue.

Another potential confounder is that control subjects for the patients in the guardianship network lived in the administrative areas (lanes) in which the guardianship networks are established, so they may have received some benefit from the presence of the network in their communities – the diffusion effect. This would have improved the outcome for the control group and, thus, decreased the differences between the control and treatment groups. The finding of significant differences between the control and treatment groups indicates that the diffusion effect was not a serious problem in this study.

Finally, there is the problem of generalisability of the results. Patients selected for the study came

from only a few of the many localities in Shanghai. We believe that these settings were representative of urban Shanghai; however, the usefulness of these community methods in rural areas cannot be determined from the results of the current study. Moreover, Shanghai is a huge city with a relatively well-educated population that is more prosperous than other parts of China. Some locations could successfully copy Shanghai's model of community psychiatric services, others could not.

Cultural considerations in the provision of community services

Community-based rehabilitation services for mentally disabled individuals inevitably reflect the social and cultural characteristics of the community in which they are situated. A primary goal of psychiatric rehabilitation is to improve the social functioning of clients, so the services must be sensitive to the social and cultural characteristics of the community in which the clients live. Moreover, community-based services must be accepted and supported by members of the community at large, so the concerns and attitudes of the community about mental illnesses and the economic and personnel resources available in the community must be taken into consideration when planning such services.

In Shanghai and in China in general, the development of community psychiatric services is limited by some factors and enhanced by others. There are inadequate facilities and professional personnel to meet the needs of the large numbers of psychiatric patients. Shanghai, like other parts of China, lacks the types of professional who provide psychiatric rehabilitation in the West. In the entire city there are only a few clinical psychologists and no social workers or occupational therapists. Moreover, the community at large has only a superficial understanding of mental disorders; there is a strong bias against psychiatric patients and most community members doubt the usefulness of rehabilitation for those with mental disabilities. On the positive side, the vast majority of psychiatric patients (over 90%) live with family members, who, according to Chinese traditional values, have both the moral and legal responsibility of caring for the patient. Thus patients almost always have someone to rely on, and family members are usually quite receptive to community services that will help lighten their burden. Patients who worked in state enterprises prior to the onset of their illness or were able to obtain such employment after the onset of their illness (three-quarters of urban patients in Shanghai) usually have comprehensive medical insurance and adequate welfare benefits; moreover, they do not have to worry about finding new work or competing in the labour market because such jobs are usually guaranteed for life, even if one becomes disabled. Government departments, particularly in economic and cultural centres such as Shanghai, have strong interests in maintaining public order, so they are willing to support services that both treat and supervise psychiatric patients in the community; they view such services as an effective way of minimising the social disruption caused by mentally ill patients.

Primary characteristics of the 'Shanghai model'

The characteristics of Shanghai's community-based psychiatric rehabilitation services have been moulded by the sociocultural environment in which the services evolved. These characteristics include strong governmental participation, mobilisation of community resources, supervision combined with rehabilitation, unique modalities of community treatment, and limited objectives.

Strong governmental participation

Wherever one works, community-based welfare services require the support and participation of governmental agencies. This is especially true in China because there are no volunteer or religious organisations that help finance and co-ordinate social welfare programmes. Shanghai has a three-tier system of management for the treatment and prevention of mental illnesses: municipal, district (county) and street (township). Representatives from the departments of Public Health, Public Security, and Civil Affairs (i.e. public welfare) actively participate in these management groups. The role of these groups is to establish mental health policy, organise public education campaigns, co-ordinate mental health services, and evaluate and supervise the provision of services (Yan & Zhang, 1990). Originally these groups focused on the management and acute treatment of the mentally ill, but they have recently promoted the incorporation of a psychosocial rehabilitation component into all community-based mental health services. With this type of governmental support, many things become possible. For example, the first work therapy station was opened in 1973 but the development of these facilities was very slow. In 1978 the city government held a meeting that recommended the promotion of these services; in the following year more than 100 new stations were opened.

Mobilisation of community resources

In a developing country that has limited resources to expend on welfare, community psychiatric services must rely heavily on the resources available. Given the limitation in the numbers of professionals and the lack of adequate funding, it would have been impossible to develop such an extensive community treatment network in Shanghai without relying on community resources. At present the work therapy stations and guardianship networks are principally operated by volunteer non-professionals and by administrators paid by local community agencies. The community follow-up programme is provided by non-psychiatric medical workers from primary-level health organisations that are paid for by the local communities. These services are provided in facilities that have, for the most part, either been borrowed from other organisations or rented using local funds.

Supervision combined with rehabilitation

In China the greatest concern of the community regarding the mentally ill is that they may, when ill, cause social disruption, destruction of property, or personal injury. Thus the management and supervision of the mentally ill is a primary concern of the government and the community. Our community services cannot reject this responsibility; rather, we must combine supervision with rehabilitation and, in this way, obtain the support and approval of the community.

Unique modalities and community treatment

We can draw lessons from the experience of foreign countries in the provision of community services, but we certainly cannot transport their models wholesale to China. For example, the trend in the West of providing hostels, partial hospitalisation, and various independent living options for the mentally ill will not (at least for the present) be followed in Shanghai because almost all patients live with their family and because it would be extremely difficult to get public support for community-based alternative housing for the mentally ill. On the other hand, our work therapy stations are somewhat similar to the occupational rehabilitation (therapy) centres and the sheltered workshops seen in the West. Our family support groups are just beginning, so it is too early to determine whether they will take the same form and have the same types of activity as support groups in the West. Guardianship networks appear to be a type of community service for the mentally ill that is unique to China; they depend on the active support and co-ordination of government officials from different departments at different levels of administration and on a large corps of community volunteers. The comprehensive mental health services provided by some of Shanghai's large enterprises also appear to be a unique modality of community treatment; they evolved in a setting where persons with mental illnesses cannot be fired from their jobs, and so the enterprise benefits if they can be rehabilitated. In sum, the types of service we provide are different from those reported in the West, but they are appropriate for the actual conditions in China, acceptable to the community and of proven efficacy.

Limited objectives

Given the current needs and limitations of the community, the focus of our work must be on maintaining drug therapy and providing occupational rehabilitation to those with serious mental disorders. The more advanced forms of psychosocial rehabilitation such as individualised social skills training can, at present, only be implemented on an experimental basis at a few sites. We are completely unable to provide rehabilitative services to those with less serious disorders. Of course, we must continue to popularise the notion of psychiatric rehabilitation in the community and gradually improve the quality and range of the services we provide. We cannot, however, copy the models of the resource-rich West; we must judiciously allocate our limited resources to problems that we are capable of resolving successfully and that will, if resolved, have a major impact on the community's overall level of mental health.

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