

Supplemental content for APPI-PS-2014-00087:

Details for admission and exclusion criteria:

Significant functional impairment is defined as:

- Aged 18-45 years.
- Have been diagnosed as schizophrenia according to the DSM-IV
- Have been diagnosed with schizophrenia for twenty years or fewer.
- Have significant functional impairments as demonstrated by at least one of the following conditions: Significant and persistent difficulty in performing daily living tasks except with significant support or assistance from others; significant and consistent difficulty in maintaining employment at a self-sustaining level or carrying out a homemaker role; and significant difficulty maintaining a safe living situation.
- Have one or more of the following problems, which are indicators of a need for continuous high level of services: High use of acute psychiatric hospitals (e.g., two or more admissions per year; intractable (i.e., persistent or very recurrent) severe major psychiatric symptoms; and difficulty effectively utilizing traditional office-based outpatient services.

The Exclusion Criteria for clients including:

- Refusal to participate in this study
- Individuals with a primary diagnosis of chemical abuse, organic brain disorder, mental retardation, or severe head trauma, or personality disorder

The inclusion criteria of the family include all of the following:

- Family member living with and caring for one relative with a primary diagnosis of schizophrenia, according to DSM-IV, for more than three months
- The family member suffering with schizophrenia is the only family member with mental illness, and this member does not suffer major comorbidity of another mental illness.
- Aged 18 years or over

Table1 Demographic, socio-economic, and clinical characteristics of patients and their caregivers in the ACT and control groups^a

Characteristics	Intervention group (n=15)		Control group (n=16)		Z/X ² Score	P-value
	N	%	N	%		
Gender						
Male	10	66.7	10	62.5	.05	.809
Female	5	33.3	6	37.5		
Age (M±SD)	30.4±7.6		32.9±6.2		.95	.342
Marital status						
Single	12	80	15	93.8	1.64	.441
Married	2	13.3	1	6.2		
Divorced	1	6.7	0	0		
Education Years (M±SD)	10.9±2.9		10.5±2.2		.31	.759
Work experience						
Never	10	66.7	11	68.8	.02	.901
Ever	5	33.3	5	31.2		
Duration of illness (M±SD)	13.7±6.6		11.7±5.9		.85	.394
Number of hospitalization (M±SD)	3.67	3.24	3.94	3.07	.60	.549
Number of hospitalization in last two years (M±SD)	.9±1.4		.7±.8		.15	.879
Caregivers' age						
35-45	3	20	2	12.5	.42	.936
46-55	4	26.7	4	25		
56-65	7	46.7	9	56.3		
66 or above	1	6.6	1	6.2		
Caregivers' biological relationship						
Parent	14	93.3	15	93.7	2.00	.367
Sibling	1	6.7	0	0		
Spouse	0	0	1	6.3		
Number of family members (M±SD)	2.1±1.0		1.6±.5		1.89	.059
Economic condition						
Low-income family	6	40	9	56.3	.82	.366
Non-low-income family	9	60	7	43.7		

^a Means were compared by nonparametric tests, and proportions were compared by chi square tests

Table 2 Fidelity score of our ACT team measured by Dartmouth Assertive Community Treatment Scale

Table 3: Before-after 3 months Comparison in clinical outcomes between ACT and control group

Criterion		Score
<i>Human resources: Structure and composition</i>		47
H1	Small caseload	5
H2	Team approach	5
H3	Program meeting	5
H4	Practicing ACT leader	4
H5	Continuity of staffing	4
H6	Staff capacity	4
H7	Psychiatrist on team	5
H8	Nurse on team	5
H9	Substance abuse specialist on team	1
H10	Vocational specialist on team	5
H11	Program size	4
<i>Organizational boundaries</i>		27
O1	Explicit admission criteria	5
O2	Intake rate	4
O3	Full responsibility for treatment services	4
O4	Responsibility for crisis services	3
O5	Responsibility for hospital admissions	3
O6	Responsibility for hospital discharge planning	3
O7	Time-unlimited services (graduation rate)	5
<i>Nature of services</i>		30
S1	Community-based services	5
S2	No dropout policy	5
S3	Assertive engagement mechanisms	2
S4	Intensity of service	5
S5	Frequency of contact	3
S6	Work with informal support system	5
S7	Individualized substance abuse treatment	1
S8	Dual disorder treatment groups	1
S9	Dual Disorders (DD) Model	1
S10	Role of consumers on treatment team	2

Table 3: Before-after 3 months Intervention Comparison in clinical outcomes between ACT and control group

Scales	ACT group (n=15)		Control group (n=16)		Before-after 3 months intervention comparison between groups	
	Pre-intervention	3 months after intervention	Pre-intervention	3 months after intervention	Z SCORE	P-value
PANSS						
Total score	82.13±12.20	64.6±14.0	81.75±19.89	87.19±21.39	3.581	<0.001**
Positive scale	24.87±7.92	19.4±7.77	25.38±7.20	26.06±7.637	2.933	0.003**
Negative scale	17.87±5.42	13.4±3.92	17.25±6.47	18.44±7.033	4.245	<0.001**
General psychopathology scale	39.4±5.65	31.8±5.56	39.13±9.55	42.69±10.69	3.013	0.003**
SDSS						
Total score	16.37±2.97	11.10±3.68	16.75±2.84	17.06±2.59	4.265	<0.001**
PSP						
Total score	43.07±9.38	55.8±8.46	42.81±11.23	41.0±10.35	3.693	<0.001**
Socially useful activities	4.27±0.59	3.67±0.49	4.44±0.51	4.25±0.68	1.586	0.113
Personal and Social relationships	4.13±0.52	3.27±0.59	4.13±0.72	4.19±0.54	3.262	0.001**
Self-care	3.53±1.06	2.93±0.88	3.44±0.81	3.75±0.68	3.346	0.001*
Disturbing and aggressive behaviors	1.60±0.91	1.27±0.70	1.81±0.98	1.94±1.06	1.848	0.065

a. *P<0.05; **P<0.01

b. Before-after 3 months intervention comparison between two groups was tested by 2-independent samples nonparametric test using the differences values in each group (3 months after intervention scores - pre-intervention scores).