

THE EFFECT OF COMMUNITY RE-ENTRY PROGRAM (CRP) ON SOCIAL FUNCTION OF PATIENTS WITH CHRONIC MENTAL DISORDERS

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ABSTRACT

Background and objectives: Community Re-Entry Program is one of the programs related to social and independent living skills that provides patients with chronic mental disorders with some information and skills. The present study aimed to assess the effect of Community Re-Entry Program on social function of patients with chronic mental disorders.

Methods: In this study, 40 patients with chronic mental disorders referring to outpatient rehabilitation centers of Hamadan, Iran were randomly divided into an intervention (N=20) and a control (N=20) group. The intervention group received community rehabilitation program in 16 60-90-minute educational sessions held twice a week for two months. The control group, on the other hand, took part in the center's routine occupational therapy. Both groups were evaluated using Assessment of Communication and Interaction Skills (ACIS) questionnaire before and after the intervention.

Results: The results showed a significant change in physicality ($P<0.02$), information exchange ($P<0.02$), and total score of ACIS questionnaire ($P<0.01$) in the intervention group compared to the control group after the intervention. However, no significant difference was found between the two groups concerning relations ($P>0.09$).

Conclusion: The results showed that Community Re-Entry Program played an important role in improving social function among patients with chronic mental disorders. Yet, future studies are required to assess the long-term clinical effects of this program

Key words: Community Re-Entry Program, Social function, Patients with chronic mental disorders, Skills training.

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Introduction

Severely mentally ill persons, diagnosed with schizophrenia or mood disorder, often experience a complex and disturbing illness course. Characterized by significant and sometimes disabling symptoms of delusions, hallucinations and social withdrawal, these patients are at high risk for relapse⁽¹⁾. In general, such patients have considerable disability in social, family, and work functioning, even after their acute episodes have been controlled and their symptoms have been brought into relative remission⁽²⁾.

The effectiveness of neuroleptic medications in controlling the positive symptoms of psychosis has enabled many patients to live in the community⁽³⁾, and the fact that medications, by themselves, cannot teach patients the coping skills they require for survival and maintenance in the community⁽⁴⁾. Also well-documented deficits in social and living skills of chronic mental patients together with the current drug and psychosocial treatments for this population, provide a strong rationale for developing new interventions⁽⁵⁾. Social skills training directed to problems in the areas of instrumental roles, family relationships, vocation, and friendships and

peer support has become an innovative avenue for psychosocial intervention with severely disabled psychiatric patients⁽⁶⁾. Previous studies have discussed that social skills training as an effective method in improving the quality of life and psychosocial functioning of patients with schizophrenia^(7,8). Recent studies have also shown that based on routine treatments, social skills training could significantly improve the patients' social function and quality of life in the rehabilitation stage^(9,10).

Among different approaches for social skills training, most studies have used UCLA social and independent living skills program⁽¹¹⁾. Community re-entry program is one of the programs related to social and independent living skills program designed by Liberman and et al. in Schizophrenia and Psychiatric Rehabilitation Research Center of UCLA University. This program integrates novel educational issues about discharge plan with drug management, self-management of symptoms, and organization of leisure, and trains patients with schizophrenia and other chronic mental disorders regarding information and skills that facilitate transfer from a psychiatric hospital to community-level care⁽¹²⁾.

Studies have shown that community re-entry program could play a critical role in improving the life quality of patients with severe mental disorders at discharge from the hospital⁽¹³⁾. As Well-organized, highly structured skills training, as reflected by the modules of the UCLA Social and Independent Living Skills Program, paired with optimal pharmacotherapy, could result in benefits in social functioning among patients suffering from schizophrenia⁽¹⁴⁻¹⁶⁾. Recent longitudinal studies demonstrated the effectiveness of the community re-entry program on social function of patients^(17,18).

Considering the studies on the efficiency of this program in patients with schizophrenia, the present study researchers decided to assess the effect of the Persian version of community re-entry program on social function of patients with chronic mental disorders referring to outpatient rehabilitation centers of Hamadan, Iran.

Materials and methods

This randomized controlled clinical trial was conducted after making the necessary arrangements by outpatient rehabilitation centers of Hamadan, Iran. Based on the inclusion and exclusion criteria of the study and considering $\alpha=0.05$ and $\beta=0.26$, 40

patients (20 males and 20 females) were selected through convenience sampling and were randomly divided into an intervention and a control group each containing 20 patients (10 males and 10 females). The inclusion criteria of the study were having schizophrenia and mood disorders based on DSM-IV diagnostic criteria approved by a psychiatrist, being 20-65 years old, passage of at least two years from the disease onset, not having history of recurrence, hospitalization, and change in medications in the past two months, and being willing to participate in the study. On the other hand, the exclusion criteria of the study were having history of any acute medical conditions and neurological damages and suffering from mental retardation.

Evaluation was performed through observation. After initiation of the first therapeutic relationship, the therapist explained the questionnaire to the patients. It should be noted that the researcher could play the role of the director, participant, or observer. Moreover, the evaluation could be stopped by the researcher or the patients and be postponed for any reason. The evaluation lasted for 20-60 minutes. The selected activities were appropriate, meaningful, and motivating. During the test, the patients had to understand the goal of the evaluation and be encouraged to take part in the interaction.

Before beginning the community re-entry program, the therapist completed ACIS questionnaire in both study groups. Then, the patients in the intervention group took part in educational sessions in groups of 6-8. The content of the community re-entry program included introduction of the program, signs and symptoms of mental disorders, determination of preparation for discharge, planning for community re-entry, establishing relationships with the society, coping well with stress in the society, designing a daily plan, setting and being committed to a meeting, role of medication in preventing disease recurrence, evaluation of beneficial effects of medications, solving medical problems, solving the issues related to side effects of medications, identification of warning signs of disease recurrence, information about warning signs of diseases, presentation of a plan for preventing emergency recurrence, and taking one's emergency plan to the society.

The educational sessions were held in the rehabilitation centers twice a week (each lasting for 60-90 minutes) for two months. In each session, the following seven stages were carried out: 1- introduction, 2- showing the video and taking part in

question and answer, 3- role play, 4- resources management, 5- problems of the results, 6- clear exercises, and 7- homework. In the last session, the therapist completed ACIS questionnaire for both groups again. It should be mentioned that the patients in the control group only received the rehabilitation centers' routine treatments. After all, the data were coded by a computer and were analyzed using the SPSS statistical software, version 16.

Results

The results of independent t-test revealed no significant difference between the two groups regarding age concerning marital status ($P < 0.46$) and occupation (Table 1 and 2)..

Group	Number	Minimum	Maximum	Mean	SD	T	P-value
Intervention	20	24	62	37.6	9.416	-1.091	0.282
Control	20	29	50	40.4	6.564		

Table 1: The results of descriptive statistics and independent t-test regarding the mean age of the patients with chronic mental disorders in the two groups.

Also, the results of chi-square test indicated no significant difference between the two groups.

Variable	Group	Observed frequency	Expected frequency	X2	P-value		
Occupation	Employed	Intervention	6	6	0.53	0.46	
		Control	4	4			
		Total	10	10			
Jobless	Intervention	14	14	0.53	0.46		
		Control	16			16	
		Total	30			30	
Marital status	Single	Intervention	12	11	0.53	0.46	
			Control	11			11
			Total	23			22
	Married	Intervention	5	7			
			Control	8			7
			Total	13			14
Widowed	Intervention	3	2				
		Control	1	2			
		Total	4	4			

Table 2: The results of chi-square test regarding comparison of frequency of patients with chronic mental disorders in the two groups based on occupation and marital status.

Kolmogorov-Smirnov test was used to assess normal distribution of the data. The results showed

that all the variables, except for relationships and occasions, followed normal distribution. The results of independent t-test revealed no significant difference between the two groups regarding relations before the intervention. After the intervention, although the mean of this variable increased in the intervention group compared to the control group, the difference was not statistically significant ($P > 0.091$) (Fig 1, 2). This implies that the program was not significantly effective in this variable in the intervention group (Table 3 and 4).

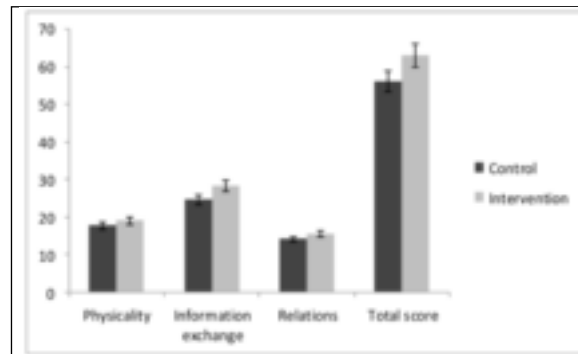


Figure 1: The results of independent t-test.

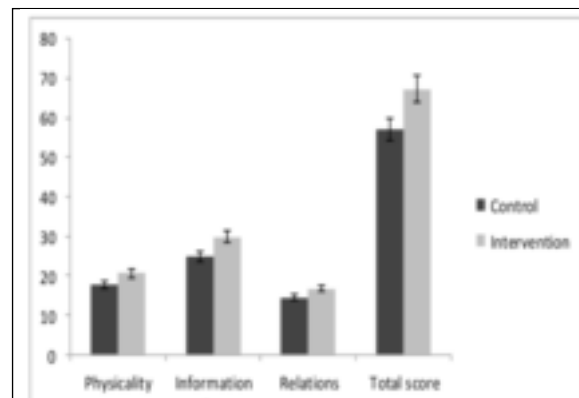


Figure 2: The results of chi-square test regarding comparison of frequency of patients with chronic mental disorders.

Stages		Pre-test			
Variable	Group	Number	Mean	SD	T
Relations	Control	20	14.1	4.8	1.03
	Intervention	20	15.55	4.04	

Table 3: The results of chi-square test regarding comparison of frequency of patients.

The average of Scores before the intervention program in social performance variables in subjects

The average of Scores after the intervention program in social performance variables in subjects

According to the results of Mann-Whitney test, (Fig 3) the two groups were homogeneous

regarding physical characteristics, information exchange, and total score of ACIS questionnaire before the intervention. After the intervention, however, a significant difference was found between the two groups regarding physicality ($P < 0.02$), information exchange ($P < 0.024$), and total score of ACIS questionnaire ($P < 0.024$). This indicated the effectiveness of the program in the intervention group.

Stages		Pre-test			Post-test		
Variable	Group	Number	Mean ranks	P-value	Number	Mean ranks	P-value
Physicality	Control	20	18.65	0.31	20	16.22	0.02
	Intervention	20	22.35		20	24.78	
Information exchange	Control	20	17.65	0.12	20	16.35	0.024
	Intervention	20	23.35		20	24.65	
Total score	Control	20	17.6	0.11	20	16.05	0.016
	Intervention	20	23.4		20	24.95	

Table 4: The average of total score in pre-test and posttest of social functioning in two groups of patients with mental disorders.

Discussion

The study results revealed a significant change in the intervention group regarding physicality, information exchange, and total score of ACIS questionnaire compared to the control group after the intervention. These results indicated the effectiveness of the program in social function of the patients with chronic mental disorders. In other words, It seems that people in the community re-entry program group could successfully use the social skills learnt in the program in the community to restore impaired social functioning. present study results was in agreement with the results of the studies by Xiang & et al (2002, 2004, 2006, and 2007)⁽¹⁹⁻²²⁾ and Liu & et al (2009)⁽²³⁾. Xiang & et al (2002) Concluded that the community re-entry program played an important role in improving social functioning in schizophrenia outpatients, Xiang in this study examined subjects with teaching the program for one year⁽¹⁹⁾.

Xiang & et al(2004) Showed that the community re-entry program a greater impact on social function of patients with schizophrenia compared with traditional rehabilitation programs,also In this study, patients were evaluated after one year⁽²⁰⁾.

Xiang & et al(2006) stated that the Chinese version of community re-entry program was an effective psychosocial intervention for improving such patients' social function. In this study Xiang

examined community re-entry program with supportive counseling program in control group and a period of 6 months that were different with the present study⁽²¹⁾. Xiang & et al(2007) indicated that community re-entry program have had considerable improvement in social function and reemployment, despite being consistent of results but were different with present study in areas of inpatient setting and also examined this program with psychoeducation program in control group⁽²²⁾. Liu & et al (2009) stated that community re-entry program skills training improved social function rural patients with schizophrenia in comparison to the control group, however, The difference this study was to present study that were used medication and symptom management training programs in addition to community re-entry programs in the experimental group and also, the subjects were followed for two years⁽²³⁾. It is worth mentioning, the document that antithetic whit present study was not found to address no effect community re-entry program on social function of the patients with chronic mental disorders and schizophrenia.

Given that the present study only focused on the short-term (2-month) effects of the program, while long-term effects can be determined after a year. Despite the increase in the intervention group's mean score of relations after the intervention, no significant difference was observed between the two groups in this regard. This can be attributed to the small sample size of the study. Another limitation of the current research was utilization of ACIS questionnaire. Thus, future studies are required to make use of more comprehensive instruments. In spite of the limitations, the study findings indicated that the community re-entry program was highly effective in the patients' social function. Unfortunately, there are barriers against application of the skills obtained from psychosocial interventions, particularly social skills training, in daily life. Some of these barriers result from the patients' positive and negative symptoms and neurological deficiencies. Lack of environmental conditions for application of the acquired skills in a clinical setting and absence of encouragement and empowerment on the part of caregivers might also play a role in this regard^(16,24).

Therefore, further studies are recommended to assess generalization of the acquired skills to daily life and the society.

Conclusion

The findings of the present study showed community re-entry program as an effective strategy for improving social function among the patients with chronic mental disorders in outpatient rehabilitation centers. This improved social function can, in turn, lead to enhanced role play in living and working independently. It also enables such patients to be active in their treatment process. This not only has beneficial effects on the patients' improvement, but also reduces the treatment costs .

Although this program was initially developed to accelerate discharge of inpatients, the results of the studies conducted on the issue in the recent years and the present one proved that execution of the program for outpatients with schizophrenia improved their health status, social function, and quality of life⁽²⁰⁾. The Persian version of this model was also safe and effective in the patients suffering from chronic mental disorders and improved their social function to get prepared for discharge and entering the society. Yet, further studies are suggested to evaluate the long-term clinical effects of the program.

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