



## The Effectiveness of Social Skills Training on Reducing Negative Symptoms of Chronic Schizophrenia

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### ABSTRACT

Because of creating serious problems for patients, schizophrenia has gained many attentions. One method to reduce negative symptoms of schizophrenia patients is mental-social approach. Applied method in this study is semi-pilot method. Statistical population consists of all schizophrenia patients hospitalized in rehabilitation centers of Karaj City by 2015. Out of the population, those with high value in Scale for the Assessment of Negative Symptoms (SANS), 30 chronic schizophrenia patients were selected randomly as sample individuals and were placed in two groups with 15 members in each group. Experimental group received 8 sessions of intervention of social skills and control group was in waiting list. Both groups fulfilled the SANS again before and after intervention and 2 months after the treatment. Obtained results were analyzed using MANCOVA and SPSS-22. Obtained results from the study showed that there is significant difference between experimental and control groups after training social skills for improvement ( $p < 0.01$ ). Obtained results show that social skill training can affect reduction of negative symptoms.

**Key words:** negative symptom, psychosocial interventions, schizophrenia

### INTRODUCTION

Schizophrenia is a severe mental illness that 1% of population may suffer from it during lifecycle [4]. In DSM5 (2013) diagnostic criteria for schizophrenia include delusions (e.g., disrupt reality testing), auditory hallucinations, disorganized speech, disrupt verbal communication, disorganized or unusual behavior and negative symptoms (e.g., loss of motivation and behavior). The symptoms of schizophrenia can be divided into two groups: positive symptoms (such as delusions and hallucinations) and negative symptoms included: social isolation, abulia... [13]. The patients have lower life expectancy than normal population. Their sedentary lifestyle is to some extent in relation with emergence of metabolic syndrome. Moreover, low physical activity of these patients is in direct correlation with increased risk of cardiovascular diseases, diabetes and other causes of mortality [8].

Negative symptoms are due to chronic nature of the disease, depression, social isolation or. However, the symptoms reduce patient's motivation and energy for cooperation in social activities and enjoy interacting with others [3]. At

least one of the two signs must include hallucinations, delusions or disorganization and these symptoms should interfere with performance. Schizophrenia can be a debilitating disorder which affects thinking, feeling and behavior of a person [5].

Social dysfunction is the most disabling features a central feature of schizophrenia resistant to treatment. Improve social dysfunction is one of the most important challenges in the treatment of people with schizophrenia.

Studies of schizophrenia have shown the relationship between psychosocial factors and schizophrenia [11]. Perhaps for this reason interventions based on that social skills training is a selective treatment of schizophrenia in spectrum disorders which aims to improve the social functioning of patients. In this regard, recent research has demonstrated the ability of this type of intervention [14].

There is strong evidence to suggest that community-based care model for mental illness, including chronic schizophrenia sometimes more effective than hospital care. [6] Nevertheless, there are few studies that have focused on the relationship between psychosocial factors and schizophrenia [10].

In a study comparing people with chronic schizophrenia and schizophrenia had been the first time it was shown that patients with chronic schizophrenia have negative symptoms and receive less social support, As a result of nursing interventions to facilitate social support and adherence to treatment in order to prevent recurrence, it seems necessary [11].

According to the effect of social skill training on improvement of psychological states and reduction of negative symptoms of psychiatric patients, the main purpose of the present study is to investigate the effect of social skill training on reduction of negative symptoms of chronic schizophrenia patients.

## **MATERIALS AND METHODS**

This study is a semi-experimental study in kind of pretest-posttest with control group. Through referring to two rehabilitation centers in Karaj City and coordination with managers of the centers, all patients hospitalized in these rehabilitation centers, diagnosed by psychiatric of diagnosis of schizophrenia fulfilled SANS. Among the participants, those with score higher than average level, 30 patients were selected randomly and were placed in two experimental and control groups. Experimental group received 8 sessions of intervention and control group was remained in waiting list. Both groups fulfilled the SANS before and after intervention and also 2 months after the intervention. Because of moral considerations, written consent was received from the samples, which tended to participate in the study.

### ***Research Instrument***

In this study, the Assessment of Negative Symptoms scale (SANS) was used. This scale is useful for a full assessment of negative symptoms of schizophrenia and Reasen and Olsen (1982). This scale has 24 articles that are organized in five sub-scales that include shallow or slow, alexithymia, passivity - apathy, lack of pleasure - social apathy and attention and any material from zero to 5.

Zadeh Mohammadi, Heidari and Majd Teymuri (2001) achieved the average reliability of the scale of the culture with the test - retest reliability and internal consistency of 0.77. They also reported average reliability separately for negative symptoms 0.78 and 0.77 for positive symptoms. In This study, Cronbach's alpha coefficient for internal consistency for the total scale of 0.87 and 0.83 respectively for positive and negative symptoms separately and 0.87 is obtained (Persian version).

### ***Educational package***

Educational package was regulated based on Beellak (2004) and included items such as Learning listening skills; requesting skill training; refusal skill; assertiveness skill training; positive and negative emotions expression training; anger expression skill training; criticism skill training and response to criticism; skills to leave a stressful situation; apologizing skills training; initiating skills training; terminating the session skill and negotiating skills training.

Training was performed in form of presenting oral explanations and practical exercise in 8 sessions. In addition to playing role for the exercise, the members used to receive homework.

## RESULTS

8 members of sample individuals were in age range of 20-30 years old; 13 people in age range of 31-40; 5 people in age range of 41-50 and 4 people were in age range of 51-60 years old. Moreover, in terms of education level, 16 people of the participants were below diploma; 7 people had diploma; 2 people were post-diploma; 3 people were in BA level and 2 people were in MA level.

Statistical indices such as mean value and standard deviation are presented in table 1.

**Table 1: Mean and standard deviation of the negative symptoms of experimental and control groups in the pre-test, post-test and follow-up**

Variable	Stage	statistical index group	Average	standard deviance	Number
negative symptoms	pre-test	experiment	59.60	15.24	15
		Control	52.33	10.966	15
	post-test	experiment	35.47	12.97	15
		Control	51.133	11.038	15
	follow-up	experiment	40.40	11.93	15
		Control	52.33	11.878	15

According to Table 1 we can see that the average of experimental in post-test group is less than pretest. On the other hand, the average of control group in pretest and post-test was equal which is almost exactly reflects the impact of social skills training to reduce the negative symptoms of schizophrenia.

### *Covariance analysis was used to examine the hypotheses.*

Covariance analysis was used to analyze hypothesis. To use Covariance analysis, first pre-assumption means independency (two experimental and control groups), normality through the Kolmogorov-Smirnov, homogeneity of variances through Levene test and linearity was examined and approved. The results are shown in the table below.

**Table 2: Analysis of variance on the mean pretest and posttest scores in the experimental and control groups varied Negative Syndrome Scale for Schizophrenia**

Variable	total square	freedom degree	average of square	Value	significant level	eta square
pre-test	3047.299	1	3047.299	61.04	0.001	0.89
follow-up	2004.764	1	2004.764	37.47	0.001	0.58

The results in Table 2 show that after controlling for the effect of pre-test, social skills training effect on negative symptoms of schizophrenia, post-test scores were determined. As can be seen between the two groups in the negative symptoms of schizophrenia there is a significant difference, ( $P < 0.01$ ) this result suggests that social skills training could be effective in reducing the negative symptoms of schizophrenia. Also results show that the average follow-up test experimental group had a statistically significant difference compared to the pre-test is that it cannot change over time because the control group average has been roughly constant over time.

## DISCUSSION

Obtained results from the study showed that social skill training can affect reduction of negative symptoms of chronic schizophrenia patients and this result is in consistence with findings of Ellis *et al* (2013) showing that negative symptoms of schizophrenia could be reduced using appropriate plans and practices and with findings of Turkington(2012) showing that social-psychological exercises can affect negative symptoms positively; although negative symptoms can be considered as resistant feature against change after treatment interventions such as Pharmacotherapy and psychotherapy and with findings of Flurry *et al* (2012) showing that in healthcare models based on society for psychic patients such as chronic schizophrenia can be sometimes significantly more effective than hospital healthcare and with findings of Mwansisya *et al* (2013) showing that patients with chronic schizophrenia have more negative symptoms than others and receive less social support and hence, comprehensive nursing interventions are required to facilitate social support and commitment to treatment to prevent relapse of disease and with findings of Norman *et al* (2000) showing that there is significant correlation between negative

symptoms and function of schizophrenia patients and their quality of life, which can refer to importance of negative symptoms of schizophrenia patients.

In regard with explaining the mentioned results, it could be mentioned that the current treatment methods of schizophrenia are multidimensional approaches to reduce multiple disorders and affecting its different dimensions. In this regard, social-mental rehabilitation can be effective. This approach has emphasis on improvement of functions and skills of individuals and skill training and especially social skill training [13].

### CONCLUSION

Obtained results from the study showed that social skill training can affect reduction of negative symptoms of schizophrenia patients. Therefore, this method could be applied to treat and reduce mental disorders of schizophrenia patients.

### Limitations and suggestions

Short time of implementing the intervention is one limitation of this study. Another limitation of this study is that it is conducted only on men. Hence, it would be better to perform this study on both genders in further studies and the time of intervention should be also longer.

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