

Effect of Social Skill Training on Social Function in Patients with Schizophrenia

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Abstract: *Objective:* To explore the effect of Social Skills Training (SST) on the social function of inpatients with schizophrenia. *Methods:* A total of 40 patients with schizophrenia (20 in the intervention group and 20 in the control group) were selected from a psychiatric hospital in Shanghai for 10 times (once a week) of social skills training. The control group was treated with routine hospitalization (drug therapy and routine hospitalization nursing) for 10 weeks. Social Disability Screening Schedule before and after intervention for patients enrolled in the intervention group (Social Disability Screening Schedule, SDSS and Scale of Social Function in Psychosis Inpatients, SSPI). *Conclusion:* The results of social skills training on SDSS and SSPI were different between the two groups, and there was no statistical value ($P > 0.05$). Observation of patients in this group, when undergoing social skills training, SSPI score was significantly better than the control group ($P < 0.01$) and SDSS score was significantly lower than the control group ($P < 0.01$), the differences were statistically significant. Social skills training and social work group intervention can improve psychiatric symptoms and further enhance social function in hospitalized patients with schizophrenia.

Keywords: Social Skills Training (SST); Schizophrenia; Social function

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1. Research background

The majority of schizophrenic patients with mental manifestations such as positive and negative syndrome decreased, at the same time, there are also social and cognitive problems, seriously damaging the quality of their lives. Therefore, relevant scholars have created the definition of schizophrenia patients with low social ability syndrome, which can be regarded as another specific manifestation of schizophrenia in addition to the clinical routine's positive and negative characteristics^[1]. Traditional antipsychotics, physical therapy, and medical methods can treat clinical psychiatric symptoms such as visual hallucination and delusion in patients with schizophrenia, but they cannot improve their deficits in social skills^[2].

Since the 1960s, researchers have been trying to change the social competence of patients with schizophrenia through the technology of social skills training, to improve their social competence to help them better "re-socialize," and thus improving the quality of their lives. Studies by Mueser *et al.* (1991) have also

confirmed that more than 50 percent of people with schizophrenia exhibit difficulties with social awareness^[3]. Mueser *et al.* (1991) summarized the main manifestations of insufficient social ability of schizophrenia patients as the inability to complete social communication independently, the inability to express self-emotion and the poor ability to deal with practical problems. Previous research results have shown that even patients who need to be hospitalized for a long time due to serious positive expression problems can still benefit from short-term SST in one or two months. During the training, they can master the target skills of dealing with social conflicts such as compromise and negotiation, and how to correctly express emotions, they can also enhance the management skills of coping with problems and can better return to the community at the same time, there are also experiments which show that SST can also relieve the symptoms of psychosis^[4].

2. Theoretical model

This study is based on social learning theory, first proposed by Bandura in 1969, which is a set of observations and principles about the natural development and learning of social behavior. According to this theory, social behavior is acquired through a combination of observing the natural results (positive and negative) of others and one's behavior. There are five principles derived from social learning theory, that can be incorporated into the social skills training of this study, that is demonstration, reinforcement, shaping, overlearning, and generalization. Rather than a single and global definition of social skills, this study focuses more on a context-based concept of social skills. In this study, the most important thing is the effectiveness of the behavior in social interaction, where the effectiveness is judged by the context of the interaction (e.g., returning the goods in question, introducing yourself on a blind date, expressing gratitude to a friend, etc.) and the specific situation in the context (e.g., expressing anger to a spouse, employer, or stranger). More specifically, social skills include the ability to express both positive and negative emotions in relationships without losing social support as a result. This skill is needed in all kinds of interpersonal relationships and it includes appropriate verbal and non-verbal response coordination. Furthermore, an individual with social skills can be able to adapt to real situations and know when his or her efforts will be reciprocated^[5]. In summary, social skills in this study are context-specific and involve maximizing reinforcement.

Based on these conditions, the social skills model adopted by this theory summarizes social skills into three aspects: receiving skills, processing skills and expressive skills). The receiving skills involve the accurate analysis of the processing process of communication information, including the analysis of gestures, speeches, attitudes and conversation modes, context relationships, etc. The processing skills involve the research of the communication information between the two parties, and the summary of the historical data in the current materials of the two parties (including the previous social behaviors of the other parties and their own social experience). The expressive skills include appropriate language expressions, as well as correct behaviors, mentality and behavior modes. Because people with schizophrenia also lack the skills to smoothly coordinate the use of these three areas of professional knowledge, they may be hindered in establishing and maintaining relationships, independent living and employment, and even seriously affect their social function^[6].

3. Research methods

A total of 40 patients with schizophrenia who were hospitalized in a psychiatric hospital in Shanghai from

January 1, 2023 to December 31, 2023 were selected as the study objects. A total number of 40 patients aged between 25 and 62 years with the diagnosis of schizophrenia, 11th edition ICD-11, male to female ratio 1:1, hospitalized for more than 1 year and clinically stable (after checking their medical records), divided into intervention group and control group on average and random. Patients in both groups had no major physical diseases, psychoactive substance dependence, or serious cognitive dysfunction, and were willing to cooperate with this study. Their guardians agreed and signed informed consent. There was no statistical significance in the comparison of general information between the two groups of patients ($P > 0.05$).

Led by medical social workers who have received social skills training and obtained relevant qualification certificates, SST social skills training was conducted for patients in the intervention group while receiving routine hospitalization treatment. The content of social skills training was based on the book “Social Skills Training for Schizophrenia: A Step-by-Step Guide (2nd edition),” which covers the 3 aspects of social skills mentioned in the social skills model theory. The training was once a week, 45–60 min each time, for a total of 10 weeks^[7]. In terms of the nature of social work groups, the SST group in this study belongs to a growth group that aims to assist members in achieving the main purpose of socialization. In this process, social workers guide the group to help group members learn social skills, assume social roles and develop their sociality. At the same time, the group in this study aimed to enhance the social skills of patients with schizophrenia, so it belongs to the skills-enhancing achievement group, which has strong educational significance. The group focused on the growth and change of individuals and emphasized the expression and interaction among group members. In the group, social workers played the functions of organizer, catalyst, demonstrator and coordinator^[8], strive to develop resources to meet group members’ social skills development needs. After the social skills training, both groups continued to follow up for 2 months.

SPSS 22.0 software was used for statistical analysis of the data, using *t*-test, $P < 0.05$ was considered to be statistically significant.

With 10 weeks of SST and social workers’ intervention, the results showed that the SDSS scores of each group were similar to the scores of the control group with the differences being statistically significant ($P < 0.05$ or < 0.01), as shown in **Table 1**. The total score, factor I, factor II and factor III of SSPI in the intervention group were significantly higher than those in the control group ($P < 0.01$), which were shown in **Table 2**.

Table 1. Comparison of SDSS scores between the two groups [mean ± standard deviation (SD)]

Item	When enrolled	10 weeks later
Intervention group (n = 20)	15.3 ± 4.27	11.5 ± 4.03
Control group (n = 20)	16.1 ± 4.30	14.9 ± 4.28
<i>t</i> -value	0.97	1.69
<i>p</i> -value	> 0.05	< 0.01

Table 2. Comparison of SSPI scores between the two groups (mean \pm SD)

Item	Research group ($n = 20$)	Control group ($n = 20$)	<i>t</i> -value	<i>P</i> -value
SSPI total score				
When enrolled	19.55 \pm 5.08	21.32 \pm 5.75	1.032	> 0.05
10 weeks later	30.07 \pm 4.96	22.33 \pm 5.99	4.456	< 0.01
Factor I				
When enrolled	6.06 \pm 2.31	6.11 \pm 2.08	0.072	> 0.05
10 weeks later	8.55 \pm 2.06	6.38 \pm 2.27	3.116	< 0.01
Factor II				
When enrolled	8.01 \pm 2.93	7.92 \pm 2.86	0.098	> 0.05
10 weeks later	13.37 \pm 3.06	8.17 \pm 2.75	5.152	< 0.01
Factor III				
When enrolled	5.36 \pm 2.88	5.75 \pm 3.06	0.415	> 0.05
10 weeks later	8.86 \pm 3.29	6.07 \pm 2.90	2.845	< 0.01

4. Discussion

Currently, antipsychotic drugs can treat the majority of psychotic symptoms in patients with schizophrenia, but even so, there is a significant stigma^[9], whether patients or their families feel stigmatized^[10]. Furthermore, there are still a large number of people with schizophrenia whose social functioning is affected, eventually leading to a decline in mental health. Therefore, systematic social skills training is very important to improve the social function of patients with inpatient schizophrenia while giving drug treatment^[11]. Social skill training (SST) has been widely used in the rehabilitation treatment of social phobia, schizophrenia, autism and other mental disorders in foreign countries^[12]. In this study, the intervention group underwent social skill training based on effective drug therapy, SDSS of this group was significantly lower than that of the control group at the 10th week of training, indicating that their social functional defects had been significantly remedied.

From **Table 2**, it can be seen that the scores of SSPI in total score, daily living ability factor, economic motivation and communication ability factor, and social behavior ability factor have important statistical value compared with other factors ($P < 0.01$), suggesting that effective SST can improve patients' social function, which is consistent with relevant research results^[13,14].

5. Conclusion

To sum up, social workers can improve the psychotic symptoms of inpatients with schizophrenia and further improve their social functions through systematic SST by applying relevant knowledge of social work and psychiatry, which provides references for innovative rehabilitation models for patients with schizophrenia and is expected to be developed into a routine treatment and rehabilitation method for schizophrenia, which could benefit patients and their families. However, this study also has some shortcomings, because social work teams tend to provide refined services, the appropriate number of group members is 8–10^[15]. As a result, the sample size of this SST is small. Considering that the duration of the whole study is only 1 year, the above results still need to be followed up for further research verification. In the future, the combined application of SST and other treatment methods, such as psychotherapy and residential rehabilitation therapy, can also be further studied to obtain a more comprehensive treatment effect.

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References

- [1] Bustillo JR, Lauriello SJ, 1999, Schizophrenia: Improving Outcome. *Harvard Review of Psychiatry*, 6(5): 229–240.
- [2] Bellack AS, Schooler NR, Marder SR, et al., 2004, Do Clozapine and Risperidone Affect Social Competence and Problem Solving? *The American Journal of Psychiatry*, 161(2): 364–367.
- [3] Mueser KT, Bellack AS, Douglas MS, et al., 1991, Prevalence and Stability of Social Skill Deficits in Schizophrenia. *Schizophrenia Research*, 5: 167–176.
- [4] Mueser KT, Bellack AS, Douglas MS, et al., 1991, Prediction of Social Skill Acquisition in Schizophrenic and Major Affective Disorder Patients from Memory and Symptomatology. *Psychiatry Research*, 37(3): 281–296.
- [5] Hersen M, Bellack AS, 1976, Social Skills Training for Chronic Psychiatric Patients: Rationale, Research Findings and Future Directions. *Comprehensive Psychiatry*, 17: 559–580.
- [6] Pinkham AE, Penn DL, 2006, Neurocognitive and Social Cognitive Predictors of Interpersonal Skill in Schizophrenia. *Psychiatry Research*, 143(2–3): 167–178.
- [7] Bellack AS, Mueser KT, Gingerich S, et al., 2021, *Social Skills Training for Schizophrenia: A Step-by-step Guide (Second Edition)*. Science Press.
- [8] Zhao F, 2015, *Group Social Work: Theory and Technology*. East China University of Science and Technology Press.
- [9] Zeng Y, Song L, 2022, Research Progress on the Intervention of Stigma in Patients with Mental Illness. *Neurological Diseases and Mental Health*, 22(9): 660–666.
- [10] Li H, Cai J, Li L, et al., 2019, Application of Narrative Enhancement and Cognitive Therapy in Stigma Care of Patients with Severe Mental Illness. *Journal of General Nursing*, 21(36): 5096–5100.
- [11] Long Y, Wang D, 2014, Effect of Social Life Skills Training on Living Ability of Hospitalized Patients with Schizophrenia. *Guangdong Medical Journal*, 35(18): 2963–2965.
- [12] Yang L, Yao G, 2010, Social Skill Training in Patients with Schizophrenia. *Chinese Journal of Mental Health*, 24(4): 279–283. (in Chinese)
- [13] Huang H, Yao Y, 2011, Observation of Social Worker Intervention on Social Function of Hospitalized Patients with Schizophrenia. *Neurological Diseases and Mental Health*, 11(3): 274–276.
- [14] Bai Z, 2015, Effect of Behavioral Training on Social Function of Patients with Psychosis. *Journal of Clinical Psychosomatic Diseases*, 21(1): 126–127.
- [15] Chen X, 2015, *Theory and Practice of Group Social Work*. China University of Political Science and Law Press.

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