

Effectiveness of Social Cognition and Interaction Training (Scit) on the Level of Psychopathology Severity, Global Functioning and Quality of Life in Patients with Schizophrenia

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ABSTRACT

Background: Schizophrenia is a major psychiatric disorder which leads to significant impaired in social cognition global function and quality of life. The ability to adapt to a changing environment is compromises day to day activities.

Aim and objectives: The present study has been undertaken to assess the effectiveness of Social Cognition and Interaction Training (SCIT) on the level of Psychopathology severity, Global functioning and Quality of life in patients with Schizophrenia.

Method: The present study was based on purposive sampling technique, where a sample of twenty (N=20) schizophrenia patients were selected from different in-patient units of RINPAS. Participations were recruited as per inclusion and exclusion criteria. Further participants were divided into experiment group and control group equally by using odd-even method. The participants were assessed at pre, 1 month-post (SCIT intervention) and at 3 months follow-up assessment on PANSS, BPRS, GAFS and QOL tests which were applied on both experimental and control group individuals. The collected data were analyzed with Mean, Standard Deviation, and Mann Whitney U Test used for treatment effect was used to compare the pre, post and follow-up values of the participants.

Results: Present study findings found that patients with schizophrenia was no significant difference between the experiment and control groups in level of psychopathology severity, Global functioning and quality of life at baseline assessment. Patients with schizophrenia were found to have significant reduction in the level of psychopathology severity, and significant improvement in Global functioning and Quality of life at post intervention. When compared to the control group, post intervention. The global functioning and Quality of life were sustained comparably from the post intervention at follow-up assessment.

Conclusion: Overall finding suggested significant reduction in the level of psychopathology severity, and improvement in global functioning and quality of life in the experiment group after the SCIT intervention.

Keywords: *Social Cognition, Global Function and Quality Of Life and Schizophrenia Disorder, SCIT.*

INTRODUCTION

Schizophrenia has been found to be impaired psychosocial functioning, which includes self-care and independent living skills, the capacity to work and maintaining social relationships. Social cognition in schizophrenia is in part due to the developing body of research suggesting

that psychopathology severity and dysfunction in global functioning in schizophrenia is one of the most critical deterrents of quality of life.

Social Cognition and Interaction Training (SCIT) is an investigation procedure where integration in totality is given prime importance. In which learned skills are applied to solve interpersonal problems in everyday life. A newer approach has emerged that seeks to improve social functioning by targeting the mental operations underlying social interaction, known as social cognition. The SCIT is an alternative approach to facilitate the transfer of newly learned social skills to real-life. This approach is promising because social cognition predicts social functioning in schizophrenia.¹⁻²

AIM:

The present study was undertaken the effectiveness of Social Cognition and Interaction Training (SCIT) on the level of Psychopathology severity, Global functioning and Quality of life in patients with Schizophrenia

SAMPLE:

Based on purposive sampling technique, was conducted (2018) with sample of 20 patients with schizophrenia, and were selected from different in-patient units of Ranchi Institute of Neuro-Psychiatry and Allied Science (RINPAS). Participations were recruited as per inclusion and exclusion criteria. Further participants were divided into experiment group and control group equally by using odd-even method. All subjects were assessed at pre, post (1 month) and at 3 months follow-up with PANSS (Kay et al.),³ BPRS (Overall & Gorham)⁴, Global Assessment of Functioning Scale (GAFS) (APA).⁵ and WHO-Quality of Life Scale (WHO QOL-Brief) saxena et al.⁶ Tests were applied on both experimental and control group individuals. Thereafter experimental group participants were given SCIT intervention (Robert and Penn).⁷

Inclusion criteria for Schizophrenia	Exclusion criteria for Schizophrenia
<ul style="list-style-type: none">- Patients diagnosed as Schizophrenia according to ICD-10, DCR- Duration of illness 2-5years- Patients in the age range of 20-45years- Education range: 6th grade and above- Right handed patients- Patients who are able to understand Hindi / English language- Patients who are ready to give informed consent and are co-operative for the study	<ul style="list-style-type: none">- Patients with any other co-morbid psychiatric illness- Patients with Intellectual Disability- Patients with neurological disorder or history of significant head injury- Family history of psychiatric illness

PROCEDURE:

After obtaining informed consent, patients fulfilling the inclusion and exclusion criteria will be selected 20 patients with schizophrenia were divided into experiment group and control group equally by using odd-even method. After explaining the objectives and procedure of the study in detail, socio-demographic and clinical data were gathered. The subjects were administered with PANSS, BPRS, GAFS and QOL. Thereafter experimental group participants were given SCIT⁷ (video stimuli modified Indian Version) for one month (five sessions/ per week). The patients were on treatment as usual. Thereafter post intervention assessments were

carried out. After three months the follow-up assessments were conducted again. The recruited subjects were fully participated up to the follow-up assessment.

STATISTICAL ANALYSIS:

The collected data were analyzed with Mean, Standard Deviation, and Mann Whitney U Test for treatment effect was used to compare the pre, post and follow-up assessments scores of the participants

RESULT AND DISCUSSION:

There were no significant between Experimental and Control Group of Schizophrenia Patients in terms of the level of Psychopathology severity, BPRS, Global Functioning (GAF) and Quality of life (QoL) at baseline Assessment.

Table-1: Shows the Post Intervention Assessment and Comparison between Experimental and Control Group of Schizophrenia Patients on the level of psychopathology severity (PANSS), BPRS, Global Assessment Functioning (GAF) & Quality of Life (OoL)

Area of Assessment		Subjects	Expt. Group of Schizo. (N=10) M±SD	Control Group of Schizo. (N=10) M±SD	Mann Whitney U test			
					Mean Rank		U	P-Value
					Exp. Group	Cont. Group		
PANSS	PANSS-Positive	8.20±1.23	10.60±2.50	7.65	13.35	21.500	0.028*	
	PANSS-Negative	7.40±0.51	9.40±2.32	7.00	14.00	15.000	0.005*	
	PANSS-General Psychopathology	21.20±1.81	25.50±3.31	6.80	14.20	13.000	0.005*	
	PANSS Total	37.70±3.09	43.50±7.52	7.15	13.85	16.500	0.010**	
BPRS Total		21.40±1.26	25.60±3.56	5.95	15.05	4.500	0.001**	
GAF		79.90±5.80	60.30±14.4	14.35	6.65	11.500	0.004*	
QoL	Psychological	21.40±3.98	15.80±3.22	14.40	6.60	11.000	0.003*	
	Social	9.50±1.58	5.20±0.78	15.50	5.50	0.000	0.000**	
	Environment	28.40±4.79	23.10±2.69	13.80	7.20	17.000	0.012*	

**P≤0.001; *p≤0.005

Table-1 revealed that “Positive and Negative Syndrome Scale (PANSS). Positive symptoms were reduced in experimental group than control group. Likewise, the PANSS-Negative, PANSS-General Psychopathology and also PANSS Total symptoms showed more reduced in experimental group than control group and found significant differences between both the groups. It reveals that SCIT participants showed significant reduction in the level of psychopathology severity in PANSS at post intervention assessment. Similar findings have been observed by Lincoln et al.⁸

Participants were participated and found that “negative symptoms in the PANSS were significantly related with problems in theory of mind, less readiness to the empathic, lower self-esteem, less self-serving bias, negative self-concept related to interpersonal abilities, dysfunctional acceptance beliefs”. Other studies carried out by Lin et al.⁹ they have also

witnessed that clinical symptoms, mainly negative symptoms of schizophrenia, mediate the influence of neuro-cognition and social cognition on functional outcome of schizophrenia.

From above the result there was a significant difference found between both the groups regarding Brief Psychiatric Rating Scale (BPRS) where the schizophrenia patients' level of total symptoms in BPRS was reduced significantly in the experimental group than control group. So, SCIT participants showed improvement and there exist significant changes in the level of psychopathology severity in BPRS at post intervention assessment. Similar findings have been observed by Bartholomeusz et al.¹⁰

From the results the experiment group showed significant improvement on Global Functioning (GAF) than control group at post intervention assessment. Similarly other studies were SCIT is a 20 week, manualized, group treatment intended to develop social functioning in schizophrenia by means of improved social cognition (Bartholomeusz et al).¹⁰

From the result showed the Schizophrenia patients in an experimental group showed a significant improvement in social functioning than control group. Similarly, there were significant differences found between experimental and control group schizophrenia patients regarding "Quality of Life Scale (QOL)" including QOL-Psychological, QOL-Social interaction and QOL-Environment. It was indicated that SCIT participants showed improvement in the quality of life than control groups. This better social quality of life and functioning are attributed to improvement in social cognition which includes theory of mind, attribution bias, emotion recognition, and social perception at post intervention assessment (Combs et al.¹¹ & Siegrist et al¹²).

Table-2: Shows the Follow up Assessment and Comparison between Experimental and Control Group of Schizophrenia Patients on the level of psychopathology severity (PANSS), BPRS, Global Assessment Functioning (GAF) & Quality of Life (QoL)

Area of Assessment		Subjects	Experimental Group of schizophrenia (N=10) M±SD	Control Group of schizophrenia (N=10) M±SD	Mann Whitney U test			
					Mean Rank		U	P-Value
					Exp. Group	Cont. Group		
PANSS	PANSS-Positive	7.00±0.00	8.40±1.65	7.50	13.50	20.000	0.005*	
	PANSS-Negative	7.00±0.00	8.40±1.35	7.00	14.00	15.000	0.002*	
	PANSS-General Psychopathology	17.80±1.41	22.40±2.88	6.35	14.65	8.500	0.001**	
	PANSS Total	32.40±2.12	4.30±6.43	5.95	15.05	4.500	0.001**	
BPRS Total		19.60±0.97	24.70±5.06	6.30	14.70	8.000	0.001**	
GAF		91.60±4.61	68.60±9.09	15.50	5.50	11.500	0.004*	
QoL	Psychological	22.60±2.91	17.50±3.34	14.20	6.80	11.000	0.003*	
	Social	9.10±1.73	5.30±1.06	15.20	5.80	0.000	0.000**	
	Environment	30.50±3.37	21.30±2.45	15.50	5.50	17.000	0.012*	

**P≤0.001; *P≤0.005

There was a significant difference found between both the groups of schizophrenia patients regarding “Positive and Negative Syndrome Scale (PANSS)” assessment. “PANSS-Positive symptoms, PANSS-Negative symptoms, PANSS-General Psychopathology and PANSS Total symptoms” were reduced in experimental group than control group. It indicated that SCIT participants showed significant changes in the level of psychopathology severity in PANSS at follow up assessment. The finding of present study is supported by Roberts et al.¹³ There was a significant that experimental group participants have low level of BPRS-Total symptoms than control group. It revealed there were significant differences found between two groups with schizophrenia patients regarding the BPRS-Total symptoms. This indicated that SCIT participants showed improvement and there were significant changes in the level of psychopathology severity in BPRS, at follow up assessment.

From the results the experiment group showed significant improvement on Global Functioning (GAF) than control group at follow-up assessment. There was significant difference in experimental group of schizophrenia patients showed some improvement on social functioning in “Quality of Life” assessment. Experimental group showed improvement in the QOL-Psychological, QOL-Social interaction and QOL-Environment. The present study finding was supported by Gordon et al¹⁴ who found that SCIT participants have significant improvement in quality of life, emotion recognition, social skills and a trend toward better life skills from pre to post intervention”. Similarly, studies conducted in China and Finland which confirmed that “translated versions of SCIT were suitable and effective in enhancing social cognition and social functioning.”¹⁵⁻¹⁶

CONCLUSION:

Findings of the current study revealed that no significant differences were found between experiment and control groups in level of psychopathology severity and Global functioning at baseline assessment. Patients with schizophrenia have significant reduction found between experiment groups than control group in level of psychopathology severity, and significant improvement in Global functioning and Quality of Life at post intervention and it was sustained comparably from the post intervention at follow-up assessment. Overall finding suggested reduction in Psychopathology severity and improvement in Global functioning and quality of life after the SCIT intervention.

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