Research Paper

A Study showing the Effectiveness of Psychosocial Group Therapy Sessions in Rehabilitation of Schizophrenia Patients- Integrated CBT and Social Skills Intervention

Garima Kapoor[1]*, Rupali P. Shivalkar[2], Vedprakash Maurya[3], Sangeeta Mitra[4]

ABSTRACT

Background: Researches on schizophrenia patients using CBT or psychosocial rehabilitation showed positive results in past. *Aim:* The current research taking it forward using psychosocial rehabilitation group therapy sessions (Integrated CBT and Social Skills Intervention) with schizophrenia patients. *Methodology:* The study is done with a single group of thirty schizophrenia patients within a period of four months (included 30 group therapy sessions, two sessions per week). Improvement was assessed using PANSS rating scale. *Results:* Pre and post sessions PANSS scores showed considerable reduction in their positive, negative and general psychopathology symptoms. The scores therefore suggest improvement in patients' understanding of their illness, their functioning and on their recovery. *Conclusion:* These findings suggest usefulness of psychosocial group therapy work (integrated CBT and Social skills interventions) with patients having schizophrenia. *Future implications*: To develop a psychosocial rehabilitation group therapy module for patients with schizophrenia.

Keywords: Schizophrenia, Psychosocial Rehabilitation, Cognitive Behaviour Therapy, Group Therapy.

Schizophrenia is the most severe psychiatric disorders that start as adulthood is approaching and is likely to be disabling for a lifetime. It has worldwide accepted prevalence of about 1% in the population (WHO, 2009). Schizophrenia occurs in all countries, cultures, and

[1] (Clinical Psychologist, Shanti Home Advanced De-addiction, Mental Health and Psychiatry Rehabilitation Center, Greater Noida, India)
[2] (Psychiatrist, Shanti Home Advanced De-addiction, Mental Health and Psychiatry Rehabilitation Center, Greater Noida, India)
[3] (Clinical Psychologist, Shanti Home Advanced De-addiction, Mental Health and Psychiatry Rehabilitation Center, Greater Noida, India)
[4] (Psychiatry Social Worker, Shanti Home Advanced De-addiction, Mental Health and Psychiatry Rehabilitation Center, Greater Noida, India)
*Responding Author

socioeconomic classes; affects both sexes equally with typical age of onset appears to be younger in males (about 21 years of age) than females (about 27 years) (Oxford Textbook of Psychopathology, 1999).

Schizophrenia is a well-researched area with numerous studies on its etiology, course and outcome, and treatment. Psychosocial treatment or rehabilitation is another area that is well researched including various intervention models such as Cognitive Behaviour Therapy, Psychodynamic psychotherapy, Social Skills Training, Expressive Therapies, etc. Researchers either reinforced on individual interventions or integrated models consisting of two or more interventions. Stanley and Shwetha (2006) did a comparative pre and post intervention analysis to determine the extent of change in symptoms of schizophrenia patients and the change experienced by their caregivers in level of their burden. In the study integrated intervention comprising of pharmacotherapy, psychosocial therapies and spiritual therapy was provided to the patients and their caregivers. The results suggested significant improvement in symptomatology and caregivers' burden. Although the study established the efficacy of an integrated psychosocial treatment, but it does not suggest the extent to which each intervention (pharmacotherapy, psychosocial intervention or spiritual therapy) individually have contributed to the improvement seen in patients as well as in their caregivers. Hegde, Rao, and Raguram (2007) developed a treatment program for schizophrenia that integrated cognitive retraining intervention with family intervention. The results indicated improved cognitive and global functioning of the patients, and decreased psychological distress and subjective burden of the caregivers; although the small sample size (three patients and caregivers) was a limitation of this study. Kannappan (2009) did a research in India where the subjects were divided into two groups: one who received only medicines; the other group with medications and psychosocial management. In this study the caregivers were provided oral information about the illness, group discussions were done to understand the illness, to accept it, identify precipitating factors, treatment strategies and stress management. The results showed improvement in symptoms of schizophrenia such as delusions, hallucinations, confused thinking and speech, bizarre or disorganized behaviour, self-neglect, and inappropriate emotions. Although the study provides useful inputs in helping caregivers understanding the illness and enhancing their coping skills, however it does not talk about providing illness information to the patients (insight facilitation in patients). Rajkumar and Philip (2013) emphasized on schizophrenia as a progressive neurodevelopmental disorder. The study addressed the role of psychological intervention including cognitive-behaviour therapy (CBT) in showing positive outcome not just in reducing the symptoms of schizophrenia but also in its long-term course. It firmly recommends five kinds of specific psychological intervention for schizophrenia: supported employment, skills training, CBT, token economy-based interventions and family-based interventions.

The present study tried to incorporate limitations of previous works, it included a sample size of 30 schizophrenia patients, focused on providing illness insight to the patients, and tried to

establish efficacy of group psychotherapy based on integrated CBT and social skills model. The study therefore aims at developing a group therapy model for schizophrenia patients reinforcing at Insight Facilitation through integrated psychosocial interventions of Cognitive behaviour therapy and Social skills training.

Hypothesis
- Significant difference in recovery of schizophrenia patients with psychosocial group therapy work

METHOD

The present study is based on experimental research design- before and after with a single group. In this study a single group of 30 schizophrenic patients were selected based on cluster random sampling, their overall symptoms (along with usage of antipsychotic medications) were taken as dependent variable and were measured before the introduction of the psychosocial group therapy sessions using Positive and Negative Symptoms Scale (PANSS by Kay, Fiszbein & Opler 1987; Kay, Opler & Lindenmayer, 1988, 1989). The PANSS measurement is derived from behavioural information about the person along with 35-45 minute clinical interview with the person. This is followed by seven-point ratings on 30 symptoms for which each item and each level of symptom severity are defined. The ratings provide scores on a seven-item positive scale, a seven-item negative scale, and sixteen-item general psychopathology scale.

The thirty patients were divided into three groups. Psychosocial group therapy sessions (30 sessions) were provided to them in duration of 4 months two sessions per week. The symptoms of those thirty patients were again measured using PANSS after completion of thirty group therapy sessions.

Topics or areas covered in group therapy sessions:
- Introduction about Group Therapy
- Communication
- Emotions and its management
- Stress and anxiety management
- Problem solving
- Illness (physical and mental illness) and its Insight
- Schizophrenia- symptoms, treatment, and rehabilitation
- Social interaction and relationships

ANOVA test and t-test were used to test the statistical significance of group therapy work with schizophrenia patients.

RESULTS AND DISCUSSION

Out of 30 schizophrenia patients, 20 were females and 10 were males, the age range was between 18- 55 years.

A Study showing the Effectiveness of Psychosocial Group Therapy Sessions in Rehabilitation of Schizophrenia Patients- Integrated CBT and Social Skills Intervention

Table 1- showing paired sample statistics

		Mean	N	Std. Deviation
Pair 1	PB1	6.23	30	.97
	PA1	2.43	30	.67
Pair 2	PB2	4.20	30	2.05
	PA2	1.53	30	.81
Pair 3	PB3	4.86	30	2.14
	PA3	1.66	30	.95
Pair 4	PB4	3.86	30	1.63
	PA4	1.46	30	.68
Pair 5	PB5	2.83	30	1.91
	PA5	1.16	30	.59
Pair 6	PB6	6.63	30	.99
	PA6	2.53	30	.77
Pair 7	PB7	6.13	30	1.25
	PA7	2.03	30	.80
Pair 8	NB1	4.56	30	1.63
	NA1	1.80	30	.99
Pair 9	NB2	5.26	30	1.28
	NA2	2.20	30	.80
Pair 10	NB3	5.06	30	1.48
	NA3	1.30	30	.65
Pair 11	NB4	5.20	30	1.64
	NA4	2.06	30	.78
Pair 12	NB5	3.66	30	1.78
	NA5	1.36	30	.71
Pair 13	NB6	2.83	30	1.94
	NA6	1.30	30	.65
Pair 14	NB7	5.10	30	1.70
	NA7	1.70	30	.74
Pair 15	GB1	2.96	30	2.34
	GA1	1.43	30	.77
Pair 16	GB2	5.66	30	1.18
	GA2	2.16	30	.74
Pair 17	GB3	1.63	30	1.27
	GA3	1.03	30	.18
Pair 18	GB4	5.43	30	1.50
	GA4	1.76	30	.72
Pair 19	GB5	2.03	30	1.60
	GA5	1.10	30	.30
Pair 20	GB6	3.06	30	1.74
	GA6	1.23	30	.50
Pair 21	GB7	3.10	30	2.26
	GA7	1.43	30	.81

A Study showing the Effectiveness of Psychosocial Group Therapy Sessions in Rehabilitation of Schizophrenia Patients- Integrated CBT and Social Skills Intervention

		Mean	N	Std. Deviation
Pair 22	GB8	5.63	30	1.06
	GA8	1.30	30	.53
Pair 23	GB9	4.16	30	1.96
	GA9	1.66	30	.84
Pair 24	GB10	2.66	30	1.72
	GA10	1.13	30	.43
Pair 25	GB11	4.93	30	1.28
	GA11	1.40	30	.67
Pair 26	GB12	6.86	30	.34
	GA12	2.86	30	.86
Pair 27	GB13	4.70	30	1.78
	GA13	1.80	30	.80
Pair 28	GB14	6.03	30	.96
	GA14	1.66	30	.75
Pair 29	GB15	4.40	30	1.58
	GA15	1.43	30	.62
Pair 30	GB16	6.16	30	1.01
	GA16	1.76	30	.77

(Source: Primary Data and analysis of SPSS 19.0)

PB- Positive scale symptom before psychosocial group therapy sessions

PA- Positive scale symptom after psychosocial group therapy sessions

NB- Negative scale symptom before psychosocial group therapy sessions

NA- Negative scale symptom after psychosocial group therapy sessions

GPSB- General Psychopathology scale symptom before psychosocial group therapy sessions

GPSA- General Psychopathology scale symptom after psychosocial group therapy sessions

Table 2- showing ANOVA Results

Source	Dependent variable	df	F	Sig.
PA	PB	1	7.279	.012
NA	NB	1	1.553	.224
GPSA	GPSB	1	5.455	.028
Corrected total	PB NB GPSB	29 29 29		

(Source: Primary Data and analysis of SPSS 19.0; Table value is 3.33 at 0.05 level, and 5.45 at 0.01 level)

The ANOVA results indicated there is significant difference in mean scores of the patients' positive symptoms and General Psychopathology symptoms before and after the group therapy sessions.

These ANOVA results therefore prove the study hypothesis that there is significant difference in recovery of schizophrenia patients with psychosocial group therapy work.

Table 3- showing t-test Results between mean scores of sub-scales before and after group therapy sessions

Scales	Mean	Standard deviation	t	df	Sig. (2-tailed)
PB1-PA1 (Delusion)	3.8	.96	21.65	29	.000
PB2 - PA2 (Conceptual Disorganization)	2.66	1.76	8.26	29	.000
PB3 - PA3 (Hallucinatory Behaviour)	3.20	1.80	9.69	29	.000
PB4 - PA4 (Excitement)	2.40	1.47	8.90	29	.000
PB5 - PA5 (Grandiosity)	1.66	1.72	5.28	29	.000
PB6 - PA6 (Suspiciousness-persecution)	4.10	.92	24.33	29	.000
PB7 - PA7 (Hostility)	4.10	1.32	16.98	29	.000
NB1 - NA1(Blunted affect)	2.76	1.16	13.00	29	.000
NB2 - NA2 (Emotional withdrawal)	3.06	1.14	14.69	29	.000
NB3 - NA3 (Poor rapport)	3.76	1.40	14.66	29	.000
NB4 - NA4 (Passive/ apathetic social withdrawal)	3.13	1.38	12.40	29	.000
NB5 - NA5 (Difficulty in abstract thinking)	2.30	1.46	8.59	29	.000
NB6 - NA6 (Lack of spontaneity and flow of conversation)	1.53	1.54	5.42	29	.000
NB7 - NA7 (Stereotyped thinking)	3.40	1.47	12.61	29	.000
GB1 - GA1 (Somatic concern)	1.53	1.79	4.67	29	.000
GB2 - GA2 (Anxiety)	3.50	.90	21.29	29	.000
GB3 - GA3 (Guilt feeling)	.60	1.27	2.57	29	.015
GB4 - GA4 (Tension)	3.66	1.34	14.90	29	.000
GB5 - GA5 (Mannerisms and posturing)	.93	1.38	3.68	29	.001
GB6 - GA6 (Depression)	1.83	1.53	6.55	29	.000
GB7 - GA7 (Motor retardation)	1.66	1.68	5.40	29	.000
GB8 - GA8 (Uncooperativeness)	4.33	1.06	22.36	29	.000
GB9 - GA9 (Unusual thought content)	2.50	1.59	8.60	29	.000
GB10 - GA10 (Disorientation)	1.53	1.52	5.50	29	.000
GB11 - GA11 (Poor attention)	3.53	1.16	16.58	29	.000

A Study showing the Effectiveness of Psychosocial Group Therapy Sessions in Rehabilitation of Schizophrenia Patients- Integrated CBT and Social Skills Intervention

Scales	Mean	Standard deviation	t	df	Sig. (2-tailed)
GB12 - GA12 (Lack of judgement and insight)	4.00	.90	24.08	29	.000
GB13 - GA13 (Disturbance of volition)	2.90	1.49	10.63	29	.000
GB14 - GA14 (Poor impulse control)	4.36	.96	24.80	29	.000
GB15 - GA15 (Preoccupation)	2.96	1.47	11.02	29	.000
GB16 - GA16 (Active social avoidance)	4.40	1.00	24.01	29	.000

(Source: Primary Data and analysis of SPSS 19.0; Table value is 2.045 at 0.05 level and 2.756 at 0.01 level)

The t-test results on before and after group therapy mean scores indicated there is significant difference in all positive sub scales, negative sub scales and general psychopathology sub scales. The highest significant difference were seen in positive sub scales of Delusions (P1) with t-score 21.65, Suspiciousness (P6) with t-score 24.33, and Hostility (P7) with t-score 16.98.

In negative scale, the highest significant difference were in sub scales of Blunted Affect (N1)with t-score 13.00, Emotional Withdrawal (N2) t-score 14.69, Poor Rapport (N3) t-score 14.66, Apathetic Social Withdrawal (N4) t-score 12.40, and Stereotyped Thinking (N7) t-score 12.61.

In General psychopathology scale, the highest significant difference were in sub scales of Anxiety (G2)with t-score 21.29, Tension (G4) t-score 14.90, Uncooperativeness (G8) t-score 22.36, Poor Attention (G11) t-score 16.58, Lack of Judgement and Insight (G12) t-score 24.08, Poor Impulse Control (G14) t-score 24.80, and Active Social Avoidance (G16) t-score 24.01. Stanley and Shwetha (2006) also found considerable reduction in mean scores and significant difference in all dimensions of PANSS with Schizophrenia patients prior to and after integrated psychosocial intervention.

The t-test results between sub scales also prove the study hypothesis that there is significant difference in recovery of schizophrenia patients with psychosocial group therapy sessions. The results indicate considerable improvements in patients' understanding of their illness, their functioning and on their recovery. The significant difference in results on sub scales of stereotyped thinking, uncooperativeness, and active social avoidance suggest that group therapy sessions covering topics of Communication, Emotions and its management, Social interaction and relationships, helped the patients in understanding their emotions better, paraphrasing those in more appropriate language and communicating them in socially appropriate ways.

Similarly significant difference in mean scores of sub scales Delusions, Suspiciousness, Hostility, Poor Rapport, Active Social Avoidance, Lack of Judgement and Insight suggest that psychosocial discussions on schizophrenia illness helped the patients in understanding their illness better, the ways it impacts them, available treatments for the same and henceforth making them more cooperative towards their treatment. These results correlate with Kannappan (2009) research where psychosocial management showed improvement in symptoms of schizophrenia such as delusions, hallucinations, confused thinking and speech, bizarre or disorganized behaviour, self-neglect, and inappropriate emotions. It also highlighted when family and patients were given information about the mechanisms of medications, patients were more likely to comply with the treatment.

The group therapy sessions on social skills such as Stress and anxiety management, Emotions and its management, and Problem solving skills also improved their functioning level as inferred from significant difference in scores on sub scales of Anxiety, Tension, and Poor Impulse control. These results correlate with findings of Hegde, Rao, and Raguram (2007) study where cognitive retraining (problem solving, comprehension and production of emotions, etc.) improved cognitive and global functioning of the schizophrenia patients.

The significance difference in scores of sub scales Blunted affect, Emotional withdrawal, Apathetic Social Withdrawal, and Poor Attention suggest that the group sessions improved overall functioning of the patients including their negative symptoms as well.

CONCLUSION

The psychosocial group therapy work with schizophrenia patients has shown significant improvement in their rehabilitation with considerable reduction in their positive, negative and general psychopathology symptoms. The group therapy sessions reinforcing on social skills of Communication, Stress and anxiety management, Problem solving, Emotions and its management, and on Insight facilitation have an important role to play in rehabilitating schizophrenia patients to their optimum level of functioning.

REFERENCES

Hegde S, Rao SL, Raguram A. Integrated Psychological Intervention for Schizophrenia; *International Journal of Psychosocial Rehabilitation*; 2007. Vol.11 (2), 5-18.

Kannappan R. Intervention for Reducing the Distress of Schizophrenic Patients; *Journal of the Indian Academy of Applied Psychology*; 2009. Vol. 35, No. 2, 257-263.

Million T, Blankey PH, Davis RD. *Oxford Textbook of Psychopathology*. New York Oxford; Oxford University Press; 1999.

Rajkumar, Philip R. Neuroplasticity and Outcome in Schizophrenia: the Role of Psychological Interventions, *Dysphrenia*; 2013. Vol. 4 Issue 2, p89-96.8p.

Stanley S, Shwetha S. Integrated Psychosocial Intervention in Schizophrenia: Implications for Patients and Caregivers (A Study from India), *International Journal of Psychosocial Rehabilitation*; 2006. Vol.10 (2), 113-128.

A Study showing the Effectiveness of Psychosocial Group Therapy Sessions in Rehabilitation of Schizophrenia Patients- Integrated CBT and Social Skills Intervention