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Efficacy and durability of interpersonal Social Rhythem Therapy in bipolar disorder

Abstract

Bipolar disorder or bipolar affective disorder is historically known as manic–depressive disorder.Medical treatment is the primary treatment for bipolar disorder. To get the best from medications, there is requirement of adding psychological treatment. The benefits of adding psychological to usual medical treatment include reductions in bipolar relapse; time spent with symptoms and hospitalization, and improved functioning.There have been various researches conducted in the area of efficacy of interpersonal and social rhythm therapy (IPSRT) but there are only a few study reported in Indian populations.Therefore present study is conducted to see the efficacy and durability of the IPSRT with active medication.

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Introduction

Bipolar disorder or bipolar affective disorder, historically known as manic - depressive disorder, is a psychiatric diagnosis that describes a category of mood disorders defined by the presence of one or more episodes of abnormally elevated energy levels, cognition, and mood with or without one or more depressive episodes. The elevated moods are clinically referred to as mania or, if milder, hypomania. Individuals who experience manic episodes also commonly experience depressive episodes, or symptoms, or a mixed state in which features of both mania and depression are present at the same time.

Bipolar disorder is a chronic and recurrent disorder, and many factors have been associated with its course and prognosis. Dysfunction in social, professional or family life has been correlated with poor outcomes and increased risk of relapse and recurrence, especially when the patient does not adhere to the treatment regimen. Over the last decade, it has been shown that innumerable psychosocial factors, including those related to social, family, psychological and occupational function, influence the emergence of bipolar disorder.

Psychosocial factors, most involving situations encountered in daily life, are responsible for 25-30% of the variation seen over the course of the disease. It has also been shown that numerous stress-related life events influence the course of bipolar disorder.

In bipolar disorder, stress secondary to psychosocial events influences circadian rhythms and social interactions. Within the last decade, new treatments, intended to promote better adherence and minimize the risk of morbidity or hospitalization.

Researchers have made progress in identifying and using effective treatments, including psychotherapy, pharmacotherapy, and combined treatments. Evidence is clear that psychotherapies and pharmacological treatments can be very helpful to reduce the relapse rates of bipolar disorder and improve the functioning of patients. A number of qualitative reviews point to the efficacy of psychotherapeutic and pharmacological interventions in bipolar disorder.But in the present study we have tried to assess the efficacy of interpersonal and social rhythm therapy in patients having bipolar disorder (mania group).

Interpersonal and Social Rhythm Therapy was developed at the Western Psychiatric Institute & Clinic at the University of Pittsburgh by Ellen Frank and her colleagues (1994). Interpersonal and Social Rhythm Therapy is a specific type of psychotherapy developed to help people with bipolar disorder. Its focus is on helping people to identify and maintain the regular routines of everyday life-including sleep patterns-and solving interpersonal issues and problems that may arise that directly impact a person's routines.

Interpersonal and Social Rhythm Therapy (IPSRT) is founded upon the belief that disruptions of our circadian rhythms and sleep deprivation may provoke or exacerbate the symptoms commonly associated with bipolar disorder. Its approach to treatment uses methods both from interpersonal psychotherapy, as well as cognitive-behavioral techniques to help people maintain their routines. In IPSRT, the therapist works with the client to better understand the importance of circadian rhythms and routines in our life, including eating, sleeping, and other daily activities. Clients are taught to extensively track their moods every day. Once routines

are identified, IPSRT therapy seeks to help the individual in keeping the routines consistent and address those problems that arise and might upset the routines. This often involves a focus on building better and healthier interpersonal relationships and skills.

IPSRT works on five different levels:

1) the link between mood and life events,
2) the importance of maintaining regular daily rhythms as educated by the Social Rhythms Metric (SRM) (Frank *et al*., 1994),
3) the identification and management of potential precipitants of rhythm dysregulation, with special attention to interpersonal triggers,
4) the facilitation of mourning the lost healthy self, and
5) the identification and management of affective symptoms

Material and Methods

Problem: Efficacy and durability of interpersonal and social rhythm therapy in treating with bipolar disorder (in manic episodes)

Aims & objectives:

· To study efficacy of interpersonal and social rhythm therapy in bipolar disorder (in manic episodes).
· To study the generalizability of interpersonal and social rhythm therapy in bipolar disorder (in manic episodes).
· To study the durability of the interpersonal and social rhythm therapy with active medication in bipolar disorder (in manic episodes)

Research design: The study was a center based exploratory study using the pre-and-post, treatment with control group design.

Venue of the study: The present research work was carried out in Ranchi Institute of Neuropsychiatry and Allied Sciences, Kanke, Ranchi.

Sample: The study comprised of 20 subjects, randomly divided into experimental and control group. Both inpatient and outpatient were selected for the study.

Inclusion criterion:

· Bipolar Patients (as per ICD-10, DCR, WHO, 1992) having manic episodes
· Patients between the age range of 20-50 years
· Male patients
· Patients who gave written consent to participate in the study
· Cooperative patients
· Educated up to class 8th

Exclusion Criteria

· Co-morbidity of any significant neurological problem.
· Mental retardation.
· Uncooperative patients.
· Education below class 8th.

Tools:

· Socio-Demographic and Clinical Data Sheet
· Young Mania Rating Scale
· Global Assessment of Functioning (GAF)

Socio-demographic and clinical data sheet: A socio-demographic and clinical data sheet was specifically designed to record relevant details of each case. The details include patient particulars, along with illness duration, age of onset, relevant past and family history, treatment history, premorbid personality, significant findings on mental status examination and diagnosis.

Young mania rating scale: The Y-MRS, developed by Young *et. al*., (1978),to assess the severity of manic symptoms, the scale has 11 items and is based upon the patient's self reporting, combined with clinician's observation over the previous 48 hours. Y-MRS is a reliable and commonly used assessment tool of proven validity. Inter-rater reliability of the total Y-MRS has been reported to be .93 with inter-rater reliability coefficients for each individual item ranging from 0.67 to 0.95. The purpose of the each item is to rate the severity of the abnormality in the patient.

Global Assessment of Functioning (GAF): The GAF scale is a worldwide used scale to assess overall level of functioning of the patients during a particular time. Functioning is considered a composite of three major areas: occupational functioning, social functioning and psychological functioning. The GAF scale, based on a continuum of mental health and mental illness is a 100 representing the highest level of functioning in all area.

Package for Interpersonal and Social Rhythm Therapy: (Ellen Frank)-

Interpersonal and social rhythm therapy focus is on helping people identify and maintain the regular routines of everyday life including sleep patterns and solving interpersonal issues and problems that may arise that directly impact a person's routines. IPSRT is administered in four phase: initial phase, intermediate phase, maintenance phase, and termination. Each phase is require to use all three of the strategies associated with IPSRT- psycho-education, social rhythm therapy, and interpersonal psychotherapy.

Phases of IPSRT: Initial Phase:

· History taken
· Educated the patients about bipolar disorder
· Taken the interpersonal inventory
· Identified an interpersonal problem area or areas that were the focus of the interpersonal interventions

Intermediate Phase: The goals of this phase were:

· Regularization of the patient's social rhythms
· Resolution of the identifying interpersonal problems

Maintaining Phase:

· Maintained regularity in social rhythms
· Anticipated and resolved the interpersonal problems before they cause distress
· Maintained euthymic mood

The final phase of the IPSRT focused on the process of termination.

Procedure: Patients suffering from bipolar disorder (mania) (diagnosed according to the DCR of ICD-10) were interviewed and screened from the wards and outpatient department of RINPAS. After screening, 20 patients who fulfilled the inclusion and exclusion criteria were selected for the study. Informed consent was taken from each patient .The nature and purpose of the study was explained to them. Clinical interview and required history was collected from patient and case record file. Socio- demographic and Clinical Data Sheet were filled for initial information. Baseline assessment of all the patients was done using YMRS and GAF. After baseline assessment; the drawn sample was randomly divided into two groups- Group A (experimental group) and Group B (control group) with 10 patients in each group. Initially both the groups were undergoing routine therapeutic intervention (i.e. pharmacotherapy). However, only the experimental group received the IPSRT in

addition, three sessions in a week. Twelve to fourteen sessions were conducted. Patients were re-assessed after completion therapy. Follow up data were taken from all the patients of experimental and control group, who came for follow up after three months.

Results and Discussion

Sample characteristics: Mean age of the participants from experimental group and control group was 33.70+10.36 and 28.50+6.83 years respectively. There was no significant difference found between experimental and control group regarding age (u value=35; z value= 90). All of the participants were male. Mean education of the participants from experimental group and control group was 9.00+.94 and 9.60+1.83 years respectively. There was no significant difference found between experimental and control group regarding education (u value=44; z value= 99).

Table-1 shows comparison between experimental and control group on other socio-demographic variables. It shows that in both groups majority of the patients were Hindu by religion, from rural background, of lower socio-economic status and were residing in joint family. Most of the participants' income was less than 5000 rupees per month. Regarding marital status participants were approximately equally divided. No significant difference was found between the experimental and control groups in the socio demographic characteristics of marital status, residence, family type, socio-economic status and income.

Table-2 show clinical characteristics of the experimental and control groups. Both the group was on medication. It shows that there was no significant difference between the experimental and control groups regarding any of the clinical characteristics under consideration.

Comparison between experimental group and control group on study variables at baseline: To ensure that the experimental group and the control group were similar in baseline scores for clinical symptoms and global assessment of functioning, both groups' scores on relevant tests were compared using Mann Whitney U Test. Tables-3 and 4 depict the group difference in baseline measures.

Table-3 shows comparison on the area of Young Mania Rating Scale (YMRS) between experimental and control group at baseline. It shows that there was no significant difference between the experimental and control group on any of the elements of YMRS. Hence the experimental and control groups were matched to each other with respect to their clinical symptoms.

Table-4 shows comparison of global assessment of functioning between experimental group and control group at baseline. It shows that there was no significant difference between the experimental group and control group in global assessment of functioning. Hence the experimental and control groups were matched to each other with respect to their functioning.

Generalizability of Interpersonal and Social Rhythm Therapy: In Global Assessment of Functioning:

To find out the generalizability of interpersonal and social rhythm therapy, intervention and control groups were compared using Mann Whitney U test on post assessment scores and on follow up scores. Table-9 and 10 shows comparison of global assessment of functioning between experimental group and control group at post assessment scores and on follow up scores.

Table-5 shows comparison on global assessment of functioning of the experimental and control group at post assessment

Table-1: Showing Socio-Demographic Characteristics of the Experimental Group and Control Group

Variables		Experimental Group	Control Group	Chi Value (df)
Marital Status	Married	4	6	.80 NS (1)
	Unmarried	6	4	
Religion	Hindu	9	6	2.40 NS (1)
	Others	1	4	
Occupation	Unemployed	6	4	.80 NS (1)
	employed	4	6	
Residence	Rural	9	10	1.05 NS (1)
	Semi Urban	1	0	
Family Type	Nuclear	4	4	.000 NS
	Joint	6	6	
SES	Lower	9	6	2.40 NS (1)
	Lower Middle	1	4	
Income	>5000	9	6	2.40 NS (1)
	<5000	1	4	

NS=Not significant

Table-2: Showing Clinical Characteristics of the Experimental Group and Control Group

Variables		Experimental Group	Control Group	Chi Value (df)
Onset	Acute	7	9	1.25 NS
	Abrupt	3	1	
Course	Continuous	5	2	1.97 NS
	Episodic	5	8	
Past history of head injury	Present	0	1	1.05 NS
	Absent	10	9	
Past history of medical illness	Present	0	1	1.05 NS
	Absent	10	9	
history of family illness	Present	5	4	0.20 NS
	Absent	5	6	

NS=Not significant

Table-3: Showing Baseline Status of Clinical Symptoms of the Experimental and Control Groups on YMRS

Areas of Assessment	Experimental Group	Control Group	Mann Whitney U Test	
	Mean+SD	Mean+SD	U value	z-score
Elevated mood	2.00+0.00	2.80+0.63	15.0	3.16 (NS)
Motor activity	1.80+0.42	2.20+0.91	35.0	1.23 (NS)
Sexual interest	1.20+ 0.42	2.30+0.67	11.0	3.17(NS)
Sleep	2.00+0.66	2.40+0.51	34.0	1.38(NS)
Irritability	1.80+1.03	2.80+0.63	21.0	2.38(NS)
Speech	4.60+1.64	3.70+1.49	34.0	1.27(NS)
Language thought disorder	1.80+0.42	1.90+0.87	48.0	0.16(NS)
Content	3.40+1.89	4.60+1.34	32.5	1.50 (NS)
Aggressive behaviour	1.60+0.84	2.60+0.96	28.0	2.19(NS)
Appearance	1.30+ 0.48	2.10+0.87	24.0	2.14 (NS)
Insight	2.70+ 0.48	3.60+0.51	14.0	3.03(NS)

NS= Not Significant

scores. It shows experimental group was significantly improved than that of the control group. The differences between the experimental and control group were significant at .05 levels.

Table-6 shows that the therapeutic gains obtained by the experimental group were not only maintained but also further improved on follow up. On the other side, in the control group further deterioration from the after intervention level has also been seen in the follow up scores. The differences between the experimental and control group were significant at .01 levels.Hence, analysis of results suggests that there has been a definite improvement in the experiment groups' functioning due to intervention indicated by higher means value in after intervention.

Durability of Interpersonal and Social Rhythm Therapy: To find out the durability of Interpersonal and Social Rhythm therapy, comparison between post assessment and on follow up scores for the status of clinical symptoms and global functioning for the experimental group and control group were done using Wilcoxon Sign Rank Test. Tables 11 to 14 depict the status of clinical symptoms and global assessment of functioning of the experimental group and control group on post assessment scores and follow up scores.

The status of clinical symptoms in the control group after intervention and on follow up is shown in table-7. There were no significant differences between post assessment scores and on follow up scores of the control group on any of the subscales of YMRS which was used to assess clinical symptom. Even Analysis of the mean scores suggest that further deterioration from the after intervention level has also been seen in all the areas on follow up.

The status of global assessment of functioning in the control group on post assessment scores and follow-up score is shown in table 8. It shows that there was no significant difference between after intervention and on follow up scores of the control group. Even Analysis of the mean scores suggest that further deterioration from the after intervention level has also been seen in the follow up scores.

The status of clinical symptoms in the experimental group after intervention and on follow up is shown in table-9. It shows that the therapeutic gains obtained after interventions were maintained on follow up. Analysis of the scores suggest that even further improvement from the after intervention level has also been seen in some of the areas on follow up such as- elevated mood, motor activity, sexual interest, sleep, speech ,language thought disorder and on content.

The status of global assessment of functioning in the experimental group on post intervention scores and follow-up score is shown in table 10. It shows that the therapeutic gains obtained after interventions were not only maintained but also further improved on follow up.

Bipolar disorder or bipolar affective disorder is historically known as manic–depressive disorder.Medical treatment is the primary treatment for bipolar disorder. Taking ongoing medication (even when the person is well) can prevent bipolar relapse, reduce hospitalizations and suicide risk. Medications can also reduce symptoms if the person experiences a bipolar episode(Smith Cornelius, Warnock, *et al*.,2007; Baldessarini, Tondo , Davis, *et al*.,2006). Medications that have shown the most benefit include mood stabilizers and atypical antipsychotics. (Smith Cornelius, Warnock, *et al*., 2007; Baldessarini, Tondo , Davis, *et al*., 2006) The use of antidepressants alone to treat bipolar disorder is not recommended as they may trigger hypomania, mania, mixed states or rapid cycling of bipolar moods (Baldessarini *et al.*, 2010).

The benefits of adding psychological to usual medical treatment include reductions in bipolar relapse; time spent with

Table-4: Showing baseline status of the experimental and control groups on global assessment of functioning

Global Assessment of Functioning	Experimental Group Mean+SD	Control Group Mean+SD	Mann Whitney U Test	
			U value	z-score
	56.0+5.67	49.20+6.28	24.0	2.23(NS)

(NS)-Not Significant

Table-5: Showing post assessment atatus of the experimental and control groups on global assessment of functioning

Global Assessment of Functioning	Experimental Group Mean+SD	Control Group Mean+SD	Mann Whitney U Test	
			U value	z-score
	78.00+6.32	71.30+5.49	28	1.96*

* p<.05

Table-6: Showing follow up assessment status of the experimental and control groups on global assessment of functioning

Global Assessment of Functioning	Experimental Group Mean+SD	Control Group Mean+SD	Mann Whitney U Test	
			U value	z-score
	87.00+3.49	57.00+11.59	1.0	3.80**

** p<.01

Table-7: Showing Status of Clinical Symptoms on YMRS in the Control Group on Scores Post Assessment Scores and Follow-up Scores

Areas of Assessment	Post assessment Scores Mean+SD	Follow up Scores Mean+SD	Wilcoxon Sign Rank Test		
			Sign	Mean rank	z-score
Elevated mood	1.70+0.48	2.30+1.05	+	3.60	1.66^NS
Motor activity	1.10+0.31	2.00+1.15	+	3.90	1.94^NS
Sexual interest	1.40+0.51	2.00+0.81	+	3.25	1.51^NS
Sleep	1.40+0.96	2.20+1.13	+	3.50	1.83^NS
Irritability	0.60+0.96	2.10+2.02	+	4.50	1.59^NS
Speech	1.90+0.87	3.90+2.55	+	3.00	2.06^NS
Language thought disorder	1.70+0.48	2.20+0.42	+	3.12	1.41^NS
Content	3.00+1.05	4.60+1.34	+	3.80	1.82^NS
Aggressive behaviour	0.40+0.84	2.20+1.98	+	3.00	2.64^NS
Appearance	0.70+0.48	1.60+1.07	+	3.80	1.80^NS
Insight	2.70+0.48	3.30+ 0.67	+	3.60	1.66^NS

NS= Not Significant

Table-8: Showing Status of Global Assessment of Functioning in the Control Group on Post Assessment Scores and Follow-up Score:

Global Assessment of Functioning	Post assessment Scores Mean + SD	Follow up Scores Mean + SD	Wilcoxon Sign Rank Test		
			Sign	Mean rank	z-score
	71.30+5.49	57.00+11.59	-	4.00	2.37^NS

NS= Not Significant

Table-9: Showing Status of Clinical Symptoms on YMRS in the Experimental Group on Post Intervention Scores and Follow-up Scores

Areas of Assessment	Post Intervention Scores Mean+SD	Follow up Scores Mean+SD	Wilcoxon Sign Rank Test		
			Sign	Mean rank	z-score
Elevated mood	1.00+0.00	0.30+0.48	-	4.00	2.64*
Motor activity	1.00+0.00	0.30+0.48	-	4.00	2.64*
Sexual interest	1.00+0.00	0.10+ 0.31	-	5.00	3.00*
Sleep	0.80+0.42	0.40+ 0.51	-	2.50	2.00*
Irritability	0.00+0.00	0.00+ 0.00	-	0.00	1.00NS
Speech	1.70+0.48	0.40+ 0.57	-	4.50	2.59*
Language thought disorder	1.00+0.00	020+ 0.42	-	4.50	2.82*
Content	1.50+0.84	0.50+0.84	-	3.50	2.27*
Aggressive behaviour	0.20+0.63	0.00+ 0.00	-	1.00	1.00NS
Appearance	0.70+0.48	0.20+ 0.42	-	4.00	1.89NS
Insight	1.00+0.00	0.40+ 0.51	-	3.50	2.44NS

* p<.05, NS= Not Significant

Table-10: Showing Status of Global Assessment of Functioning in the Experimental Group on Post Intervention Scores and Follow-up Score

Global Assessment of Functioning	Post Intervention Scores Mean+SD	Follow up Scores Mean+SD	Wilcoxon Sign Rank Test		
			Sign	Mean rank	z-score
	78.00+6.32	87.00+3.49	+	4.50	2.56*

* p<.05

symptoms and hospitalization, and improved functioning (Miklowitz, 2008; Perlick, Miklowitz, Lopez et al., 2010).Psychological treatments that have shown to be helpful include psycho-education, cognitive therapy, family focused therapy and interpersonal and social rhythm therapy (Miklowitz, 2008).

As with medical treatment, not all people benefit equally from psychological treatment and researchers found out who benefits the most from different kinds of psychological treatments (Miklowitz, 2008;Colom, Vieta, Sánchez, et al., 2009). The present study aims to test the efficacy of Interpersonal and Social Rhythm Therapy for patients with bipolar disorder; focusing on reducing the relapses and to see the durability of therapeutic gains.

For the present study, initially 30 patients were screened, out of which 20 were included for the intervention and control groups. Since it was a time, bound study sample size was restricted to the total of 20 patients with 10 patients in each group. Sample was selected using the purposive sampling technique. Population suffering from bipolar disorder was chosen for the study, as review of literature suggested the presence and stability of sleep disruption, disruption to routine, interpersonal stress in bipolar disorder. Patients were selected following the inclusion and exclusion criteria. To exclude the effect of aging, maximum age was decided 20-50 years. Both the groups were screened using the Young Mania Rating Scale and Global Assessment of Functioning (GAF). Screening was done for patients who met the inclusion criteria.

In order to see change over a period of time, assessment was done thrice during the total period of study, i.e., one at baseline, followed by post intervention at three months. Since the sample size was small, non-parametric tests were used. In order to determine whether there were any baseline differences in socio-demographic characteristics of patients assigned to intervention and the control group, a series of chi square analyses (for categorical variables) and Mann Whitney U tests (for continuous variables) were performed. For comparison of intervention and control group Mann Whitney U test and for comparison between pre-post assessments Wilcoxon Sign Rank was used. The analyses were conducted with the Statistical Package for Social Sciences (SPSS), 16.0.

Table-5 and 6 depicts the functioning of intervention group and control group on global assessment of functioning at post assessment scores and on follow up scores. Results shows, there was significant improvement noticed in the intervention group compare to control group. On the post assessment scores the differences between the intervention and control group were significant at .05 levels. Whereas on the follow up scores the difference between the intervention and control group were significant at .01 levels. Hence, it shows that therapeutic gain obtained by the intervention group was not only maintained but also further improvement was noticed in the intervention group compare to control group.

The findings of present study are consistent with the findings of Miklowitz et al. (2003), they examined the effects of IPSRT in combination with family-focused treatment and concluded IPSRT is a promising individual approach to treatment of bipolar patients following an acute episode. To find out the durability of interpersonal and social rhythm therapy, comparison between post intervention and on follow up scores for the status of clinical symptoms, daily functioning related to global assessment of functioning of both the group was done. Tables 7-10 of the results section depict the status of clinical symptoms and global functioning of the experimentalgroup and control group after intervention and on follow up.

The status of clinical symptoms in the control group after intervention and on follow up is shown in table- 7 of the results section. It shows there were no significant differences between post assessment scores and on follow up scores of the control group on any of the subscales of YMRS, which was used to assess clinical symptom. Even Analysis of the mean scores suggest that further deterioration from the after intervention level has also been seen in all the areas on follow up. It shows, that improvement was not maintained in the control group and it started weaken.

On another hand, the status of clinical symptoms in the experimental group after intervention and on follow up is shown in table- 9 of the results section. It shows that the therapeutic gains obtained after interventions were maintained on follow up. There were no significant differences between after intervention and on follow up scores of the experimental group on the areas of irritability, aggressive behaviour, appearance and on insight, which were subscales of the YMRS. Analysis of the mean scores suggests further improvement was appearing in all the areas of the YMRS. Whereas, in few areas of the YMRS significant difference noticed at .05 levels in the direction of improvement. This indicates that the gains obtained at the end of the intervention program were still maintained on follow up and in some cases were further improving. So the intervention program was not only efficacious and generalizable but also durable.

The findings of present study are consistent with the findings of Frank *et al.* (2005). They compared two psychosocial interventions: interpersonal and social rhythm therapy (IPSRT) and an intensive clinical management (ICM) approach in the treatment of bipolar I disorder and observed outcomes till two year of intervention. They found that participants assigned to IPSRT in the acute treatment phase survived longer without a new affective episode (P = .01), irrespective of maintenance treatment assignment. Participants in the IPSRT group had higher regularity of social rhythms at the end of acute treatment (P<.001). Ability to increase regularity of social rhythms during acute treatment was associated with reduced likelihood of recurrence during the maintenance phase (P = .05).

The findings of present study are also consistent with the findings of Swartz *et al.* (2009), Miklowitz *et al*. (2008), Frank *et al.* (2009).Swartz *et al.* (2009) found reduced depression and mania, with 29% achieving a full remission. Miklowitz *et al.* (2008) found, IPSRT, in combination with medication, has demonstrated efficacy as a treatment for bipolar disorders. The findings of present study is also consistent with the findings of Luciano *et al.* (2015), Sampongna *et al.* (2018) and with the findings of Fiorillo *et al.* (2016), in their studies they all notice that patients in IPSRT group reported a significant reduction in the symptomatology of bipolar disorder.

The status of global functioning in the control group after intervention and on follow up is shown in table- 8 of the results section. It shows that there was no significant difference between after intervention and on follow up scores of the control group but the analysis of the mean scores suggest that further deterioration from the after intervention level has also been seen in the follow up scores. The status of global functioning in the intervention group after intervention and on follow up is shown in table- 10 of the results section. It shows that the therapeutic gains obtained after interventions were not only maintained but also further improved on follow up. There was significant difference at .05 levels in the direction of improvements. The findings of present study are consistent with the findings of Hlastala *et al.* (2010). In their study Hlastala et al. found high levels of completion and satisfaction with IPSRT in adolescents as well as reduced severity of affective symptoms and improved functioning.The findings of present study are also consistent with the findings of Steardo L *et al.* (2020), in their study IPSRT has been confirmed to be effective in improving the clinical symptomatology of bipolar disorder patients and in improving the affective morbidity index.

The package used for the treatment of bipolar cases was found significantly effective to improve the cases. The results of the present study conclude the gains obtained at the end of the intervention program were still maintained on follow up and in some cases were further improving. Therefore, the intervention program was not only efficacious and generalizable but also durable.These findings support the feasibility of implementing interpersonal and social rhythm therapy in psychiatric outpatient settings and suggest that such a program may be beneficial for patients with significant functional and symptomatic impairments. The results of the study are also suggestive of improving clinical symptom and daily functioning of bipolar patients with manic episodes.The therapeutic gains were retained with no substantial degradation over a considerable period, shows the durability and effectiveness of the Interpersonal and social rhythm therapy program used in the study.

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