Unfortunately, some patients keep on suffering relapses even when deserved great attention by the existing psycho educational program. Adherence problems, a common feature among bipolar samples, has [7].

relapse, identification of early warning signs, and treatment adherence medications. Psycho education is highly effective in preventing prevention. This tends to bring about the individual self efficacy and condition. An education about their condition is more likely to make feeling to control and results in reduced stress associated with the illness. Better understanding of condition leads to avoidance of potentially harmful factors such as substance misuse of illness awareness, treatment adherence, early detection of relapses and lifestyle and strategies of coping with disorder, including enhancement information based behavioral training aimed at adjusting patient adjunctive treatment to standard pharmacotherapy it delivers patients and enhance the prevention of future episodes. As an therapeutic approach aimed at improves the treatment outcome of symptoms and patient's functioning [5]. Psycho education is a simple method in reducing relapse rate, burden of illness, as well as improving symptoms and patient's functioning [5]. Psycho education is a simple therapeutic approach aimed at improves the treatment outcome of patients and enhance the prevention of future episodes. As an adjunctive treatment to standard pharmacotherapy it delivers information based behavioral training aimed at adjusting patient lifestyle and strategies of coping with disorder, including enhancement of illness awareness, treatment adherence, early detection of relapses and avoidance of potentially harmful factors such as substance misuse and sleep deprivation [6]. It is education and training about a condition that causes stress to person. Better understanding of condition leads to feeling to control and results in reduced stress associated with the condition. An education about their condition is more likely to make people actively participate in their self management and relapse prevention. This tends to brings about the individual self efficacy and the accompanying benefits from other psychotherapies and medications. Psycho education is highly effective in preventing relapse, identification of early warning signs, and treatment adherence [7]. Adherence problems, a common feature among bipolar samples, has deserved great attention by the existing psycho educational program. Unfortunately, some patients keep on suffering relapses even when they strictly follow their prescribed somatic treatments. In addition to increasing compliance, psycho education may focus on early recognition of symptoms of relapse, such as hyperactivity and reduced need for sleep, minimizing the risk of hospitalization through medications of the daily therapeutic regimen. Individual intervention in teaching patients to identify early symptoms of relapse has been shown to be highly effective in preventing new episodes and improving social functioning [8].

**METHOD**

**SAMPLE:** After various inclusion and exclusion criteria, samples were selected from the outpatient department of RINPAS, Kanke, Ranchi, Jharkhand through non probability purposive sampling technique 24 patients were selected for psychoeducation. Duration of their illness was more than one year. Both groups were matched in the socio-demographic characteristics and clinical variables. Patients were in the age range of 21 to 45 years.

**DESIGN:** A pretest and posttest design with control group was used in this study. Equal numbers of patients were purposively assigned to experimental and control group.

**TOOLS:**

- **Socio-Demographic & Clinical Datasheet:** It is a semi-structured Performa especially drafted for the purpose of present study. It contains information about socio-demographic variables like Name, Age, Sex, Religion, Education, Marital status, Domicile and Occupation and Clinical details like Diagnosis, Age of Onset, Mode of Onset, Course, Progress of illness, number of admissions, number of relapse, history of severe physical illness, history of major psychiatric illness, and history of mental illness and treatment history and Medicine Adherence Rating Scale (MARS) [9] were used.

**PROCEDURE:** Patients were selected from outpatient department as per inclusion and exclusion criteria. Sample was selected to the (TAU+PE) and (TAU) group according to sample recruitment procedure. Socio-demographic data was collected from these patients. After that medication adherence rating scale was administered to both the groups. 12 patients of group were provided psychoeducation for 8 sessions once per week for about 45-60 minutes duration. The second group was control group and left to follow routine of treatment. After the intervention both the groups were administered again with medication adherence rating scale. Both groups were assessed on different outcome variables first before beginning of the therapy, second after two months and then lastly after four months of post assessment.
STASTICALANALYSIS:
As sample size in this study was small, hence obtained date was
analyzed by using non parametric statistics, namely chi square test (for
categorical variables) and Mann-Whitney U Test (for continuous
variables and between group comparison) Wilcoxon Signed Rank Test
(for within group comparisons)

RESULT

Table 1: Comparison between Psycho education + Treatment As
Usual (PE+TAU) and Treatment as Usual (TAU) on Socio-
Demographic Variables (Category Variables)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group (N=40)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TAU+PE</td>
<td>TAU</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below Matric</td>
<td>3 (25%)</td>
<td>4 (33.3%)</td>
</tr>
<tr>
<td>Matric</td>
<td>6 (50%)</td>
<td>3 (25%)</td>
</tr>
<tr>
<td>Intermediate</td>
<td>1 (8.3%)</td>
<td>4 (33.3%)</td>
</tr>
<tr>
<td>Above</td>
<td>2 (16.7%)</td>
<td>1 (8.3%)</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>5 (41.7%)</td>
<td>7 (58.3%)</td>
</tr>
<tr>
<td>Married</td>
<td>7 (58.3%)</td>
<td>5 (41.7%)</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hindu</td>
<td>11 (91.7%)</td>
<td>8 (66.7%)</td>
</tr>
<tr>
<td>Islam</td>
<td>0 (0%)</td>
<td>2 (16.7%)</td>
</tr>
<tr>
<td>Christian</td>
<td>0 (0%)</td>
<td>2 (16.7%)</td>
</tr>
<tr>
<td>Others</td>
<td>1 (8.3%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Domicile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>8 (66.7%)</td>
<td>11 (91.7%)</td>
</tr>
<tr>
<td>Semi Urban</td>
<td>4 (33.3%)</td>
<td>1 (8.3%)</td>
</tr>
<tr>
<td>Urban</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Govt_Job</td>
<td>2 (16.7%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Pvt_Job</td>
<td>0 (0%)</td>
<td>4 (33.3%)</td>
</tr>
<tr>
<td>Farmer</td>
<td>4 (33.3%)</td>
<td>2 (16.7%)</td>
</tr>
<tr>
<td>Others</td>
<td>6 (50%)</td>
<td>5 (41.7%)</td>
</tr>
<tr>
<td>Types of Family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuclear</td>
<td>7 (58.3%)</td>
<td>9 (75%)</td>
</tr>
<tr>
<td>Joint</td>
<td>5 (41.7%)</td>
<td>3 (25%)</td>
</tr>
</tbody>
</table>

NS= Not Significant

Table 1 shows the comparison between both study groups on different
socio-demographic variables. It is evident from the table that there was no
significant difference between both the groups on any of the socio-
demographic. Hence, both the groups were comparable and equivalent
in terms of socio-demographic characteristics.

Table 2: Comparison between PE+TAU group and TAU group at
baseline, post, and follow up on (MARS) Scores

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group (Mean ± SD)</th>
<th>Mean Rank</th>
<th>U</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TAU+PE  TAU+PE</td>
<td>TAU+PE</td>
<td>TAU</td>
<td></td>
</tr>
<tr>
<td>MARS</td>
<td>4.58±0.51</td>
<td>6.50</td>
<td>-2.33 ( NS)</td>
<td></td>
</tr>
<tr>
<td>Post Assessment</td>
<td>5.41±1.08</td>
<td>6.46</td>
<td>2.27 ( NS)</td>
<td></td>
</tr>
<tr>
<td>Follow up Assessment</td>
<td>3.58±1.49</td>
<td>3.25</td>
<td>-2.33 ( NS)</td>
<td></td>
</tr>
</tbody>
</table>

Table 2 shows the comparison of the scores on the MARS between
Treatment as Usual plus psychoedcation (TAU+ PE) and Treatment as
Usual (TAU) Group which was done by using Mann-Whitney U test.
It was found the mean value for MARS 4.58±0.51 for psychoeducation
and 5.41±1.08 for the (TAU) Group. There was no significant difference
found between both the groups on medication adherence scores (Z=0.40, P=0.05). Table 3 shows the
comparison of both groups on post assessment scores. From this part, it is
clear that statistically significant difference was found between both
groups in the score of medication adherence rating scale i.e. MARS
(Z=-28.68, p<0.004).

Looking at the provided mean value, standard deviations, U value, Z
value and significance level, it is evident that the participants in group
psychoeducation had scored high on medication adherence rating scale.
It indicates towards the significant effect of psychoeducation in
improving medication adherence among individuals with bipolar
affective disorder.

Another part of Table 3 shows the comparison between both the groups
on follow up assessment scores on adherence scale. On this front,
statistically significant difference was found between both the groups
i.e. MARS (Z=-23.35, P<.002).

Follow up assessment mean value, standard deviations, U value, Z
value and significance level indicates that even on follow up,
participants in psychoeducation program scored high on medication
adherence rating scale which proves that psychoeducation program was
to be beneficial in improving medication adherence.

Table 3 Comparison between baseline and post scores on Medication Adherence Rating Scale within TAU+PE group and TAU group

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group (Mean ± SD)</th>
<th>Mean Rank</th>
<th>U</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TAU+PE  TAU+PE</td>
<td>TAU+PE</td>
<td>TAU</td>
<td></td>
</tr>
<tr>
<td>MARS</td>
<td>5.41±1.08</td>
<td>5.47±1.08</td>
<td>8.46</td>
<td>6.60</td>
</tr>
<tr>
<td>Post</td>
<td>4.50</td>
<td>4.15</td>
<td>-2.868 (004)</td>
<td></td>
</tr>
<tr>
<td>Follow up</td>
<td>3.58</td>
<td>3.75</td>
<td>-2.33 (002)</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 shows comparison between baseline scores and post inter-
vention scores on MARS within both groups. First part of the table is
showing the result of baseline assessment and post assessment scores
on MARS within PE+TAU group and second part of the table is
showing the same assessment within TAU group. It is evident from the
that both groups showed statistically significant improvements
on post assessment in comparison to their respective baseline scores
but improvement in intervention group was more significant in terms
of Medication Adherence Rating Scale. Intervention group reported
statistically significant differences on MARS. Similarly, TAU group
also reported significant improvement on MARS as compared to
baseline score. These findings indicate that psycho education along
with treatment as usual brought more improvement in medication
adherence compared to treatment as usual group.

Table 4: Comparison between post and follow up scores on MARS within TAU+PE group and TAU group

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group (Mean ± SD)</th>
<th>Mean Rank</th>
<th>U</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TAU+PE  TAU+PE</td>
<td>TAU+PE</td>
<td>TAU</td>
<td></td>
</tr>
<tr>
<td>MARS</td>
<td>7.08±1.24</td>
<td>7.00±1.12</td>
<td>6.00</td>
<td>5.00</td>
</tr>
<tr>
<td>Post</td>
<td>6.41±1.08</td>
<td>6.50</td>
<td>-0.265 (NS)</td>
<td></td>
</tr>
<tr>
<td>Follow up</td>
<td>5.41±1.08</td>
<td>5.47±1.08</td>
<td>8.46</td>
<td>6.60</td>
</tr>
</tbody>
</table>

Table 4 shows the comparison between post intervention scores and
follow up intervention scores on MARS within both the groups. First
part of the table is showing the result of post assessment and follow up
assessment scores on MARS within PE+TAU group and second part of the
table is showing the same assessment within TAU group. Results of
this table indicate that the intervention group and control group did not
show further improvement in MARS total (p>0.05) which means
though they did not improve further on follow up but maintained the
gains which were previously acquired during post intervention phase.

DISCUSSION:
The present study aimed to examine the effect of psychoeducation in
improving medication adherence among individuals with bipolar
affective disorder. In this study Table 1 shows all patients were young,
age range 21-45 years. Most of them belong to different place of rural
backgrounds, educated up matric and belong to nuclear family and
work as daily wage worker. Table 1 reveals that equally both group
matched married and unmarried domains of marital status
respectively. Majority of patients belong to Hindu religion. In
medication adherence related studied similar age groups were widely
used, because of persons from similar age group are more vulnerable to
poor medication adherence so in this way majority of the participants
were from same age group George et al. (2013) In contrast, earlier
studies by Klinkenberg et al. (1997) Carpenter et al. (2013) and Nose et al. (2013)
have observed a relatively higher non-adherence in young population.
Present finding showed that psycho educative interventions as an
adjunct pharmacotherapy of bipolar disorder produce significant
improvement in medication adherence (p=0.004). These findings are
similar to the study findings of Pakpour A. H., Modabernia, A., Lin, C-
Y, et al. (2017) by showing improved medication adherence more in
patients of experimental group (baseline score=6.03, score at six
months=9.55) than in patient of controlled group (baseline score=6.17,
score at six month=6.57). Another study did by Javadpour et al. (2013)
also found a considerable improvement in quality of life, medication
adherence as well as frequency of hospitalization in 18
months follow up intervention based on psychoeducation. Mc. Donald et al. (2016)16 a Meta analysis of 18 studies showed improvement in adherence to medication in intervention group compared to control group. Similarly systematic review of randomized controlled trials of psychoeducation in participants with bipolar disorder compared with treatment as usual and placebo or active interventions group of Bond K., & Anderson I. M., (2015)17 proved that psychoeducation improved medication adherence and short term knowledge about medication. Vieta (2005)18 reported that, as an adjunct to pharmacotherapy, psychoeducation is a promising management component the increases treatment adherence and quality of life for patients. Treatment as usual group also had an increased adherence which may be due to the monitoring done by therapist in terms of intake of medicines.

LIMITATIONS:
This study held a small group of participants with few sessions and short follow up period and its sample was male only. Another limitation of the study is multiple indicators were not used to assess the adherence to medication and there was no control over the medication regimen prescribed by the consultant.

CONCLUSION:
Present study may have implications for the dissemination of effective psychoeducation in routine treatment of persons with bipolar affective disorder. Continuous follow up, support of family members, key relatives and health care team members can improve the adherence to treatment. Psychoeducation program should be provided for ambulatory and hospital patients and psychoeducation for families should be made a part of routine practice.

REFERENCES: