DURABILITY OF COGNITIVE BEHAVIOUR THEERAPY IN MANAGING DELUSION IN PATIENTS WITH SCHIZOPHRENIA

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Abstract

Cognitive Behavioral Therapy for Psychosis (CBT) is an evidence-based treatment technique shown to recover symptoms and functioning in patients with psychotic disorders. Schizophrenia is a psychotic disorder and hallucination and delusion are common symptoms in schizophrenia. The clinical features of schizophrenia hold a diverse range of disturbances of perception, thought, emotion, motivation, and motor activity. The principal aim of CBT in schizophrenia is to reduce the distress experienced due to delusions and hallucinations and to aid the patients to deal with these symptoms. Present study was conducted to see the durability of CBT in managing delusions with schizophrenia.

Key words: Cognitive behaviour therapy, Schizophrenia, Hallucination, Delusion

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Cognitive behavioral therapy (CBT) is a modern form of short-term psychotherapy based on the idea that the way an individual thinks and feels affects the way he behaves.The core premise of this treatment approach was pioneered by Albert Ellis who in 1957 introduced the term "rational emotive therapy" (RET) to emphasize its focus on emotional outcomes. Successively, Aaron Beck (1952)developed "cognitive therapy" (CT), which served as the bases for the development of CBT.

Cognitive behavioral therapy (CBT) is a treatment approach that helps to recognize negative or unhelpful thought and behavior patterns. The focus of cognitive therapy is on understanding distorted beliefs and using methods to modify maladaptive thinking, while also including affective and behavioral methods. In the therapeutic method, attention is paid to thoughts that individuals may be unaware of and to important belief systems.CBT is largely based on the idea that thoughts, emotions, and actions are connected, and maladaptive behavior occur due to cognitive error therefore, in CBT work is done on irrational thinking pattern and on cognitive errors.

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Schizophrenia is stress-related, neurobiological disorder resulting in disturbances, in form and content of an individual's thought, perceptual processes, affect and social and instrumental role behaviour (Liberman et al., 1994).Schizophrenia is a serious mental disorder in which people interpret reality abnormally. Schizophrenia may result in some combination of hallucinations, delusions, and extremely disordered thinking and behavior that impairs daily functioning, and can be disabling.The most important features of schizophrenia are- Hallucinations and Delusion. The present study dealt with delusions.

Methodology:

Aim: The aim of the study was to find out the durability of cognitive behaviour therapy in managing delusion in patients with schizophrenia.

Objectives:

- To find out the durability of gains from cognitive behaviour therapy in patients with schizophrenia having delusion.
- To find out generalizability of gains from cognitive behaviour therapy to global functioning of patients with schizophrenia.

Hypotheses:

1. There will be no significant effect of cognitive behaviour therapy in managing delusion of patient with schizophrenia on follow up.
2. There will be no significant effect of cognitive behaviour therapy on global functioning of patients with schizophrenia having hallucinations and delusions.

Study Design: This study was a centre based confirmatory study using the pre-and-post treatment with control group design.

Venue of the study: This study was carried out at in-patient department of Ranchi Institute of Neuro-Psychiatry and Allied Sciences (RINPAS), Kanke, Ranchi.

Sample size: Based on purposive sampling technique a sample consisting of 40 (20 for experimental and the other 20 for control group) male patients having schizophrenia with core symptoms of hallucination and delusions under treatment as usual were selected from different wards of Ranchi Institute of Neuro-Psychiatry and Allied Sciences (RINPAS) Kanke, Ranchi. Patients of both the groups were matched on socio-demographic and clinical variables.

Participant's Inclusion and Exclusion Criteria: -

Inclusion criterion: -

- Patients diagnosed as schizophrenia (as per ICD-10- DCR criteria (WHO, 1992)) having auditory hallucination and delusion.
- Patients between the age range of 20-50 years.
- Male patients were selected.
- Patients who gave informed consent to participate in the study.
- Patients who were cooperative.
- Patients with minimum primary level of education.

Exclusion Criteria

- Patients with co-morbid psychiatric, neurological and other physical illness.
- Patients with mental retardation.
- Patients who are uncooperative.
- Patients below primary level of education.

Tools for Pre-Test and Post-Test Assessment of the Patient:-

Socio-Demographic and Clinical Data Sheet: It is a semi-structured proforma especially designed for this study. It contains information about socio-demographic variables like age, sex, religion, education, marital status and occupation including other clinical details like relevant past and family history, presence of co-morbid conditions, mental status examination and diagnosis.

Scales to Measure Dimension of Hallucinations and Delusions: The Psychotic Symptom Rating Scale (PSYRATS):- PSYRATS is a rating scale developed by Haddock et al. (1999). This scale was developed to recognize the complexity of hallucination and delusions. It also measures the severity of these symptoms. It consists of two sets of scales, one for the auditory

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hallucinations and second for the delusions. The subscale of auditory hallucination has 11 items and to the scale for delusion has six items. Severity is rated using 5-point scale. Inter

Scale for the Assessment of Positive Symptoms (SAPS): SAPS is a 34-item scale, developed by Andreasen (1984), for the assessment of positive symptoms in individuals with schizophrenia. This scale is designed to assess positive symptoms, principally those that occur in schizophrenia. These positive symptoms include hallucinations, delusions, bizarre behavior and positive formal thought disorder. SAPS is administered via a general clinical interview, plus a series of standardized questions. It's a six point rating scale.

Global Assessment of Functioning (GAF): The GAF scale is a worldwide used scale to assess overall level of functioning during a particular time. Functioning is considered a composite of three major areas: occupational functioning, social functioning and psychological functioning.GAF scale is divided into 10 ranges of functioning, based on a continuum of mental health and mental illness maximum score is 100 which represent highest level of functioning in all area.

The Cognitive Behaviour Therapy Package for Intervention:-

The intervention took place in two stages. The first stage was assessment phase and informative. The second stage was the modification of patient's maladaptive belief regarding delusions and hallucinations and applying appropriate techniques to reduce these symptoms, depending on the suitability of the patient. Approximately 16-20 sessions were required.

Assessment Phase- It took between 1-3 sessions, it included-

- Detailed mental status examination and rating scales.
- A cognitive behaviour assessment of the delusions.

Eight basic steps from assessment to intervention-

- Focus on a Problem
- Assessment of the C (Consequence)
- Assessment of the A (Antecedents)
- Confirm A-C is the Problem
- Assessment of B (Beliefs)
- Formulation: (a) show the B-C connection, and (b) offer a developmental formulation
- Setting the goal and establishing the options
- Challenging Beliefs

Treatment – Stage 2:-Intervention with Delusion-

- ➢ Psycho-education and Normalization
- ➢ Socializing the patient to the cognitive model
- ➢ Applying cognitive and behavioural approaches
- ➢ Questioning evidence in support of delusional beliefs and building alternative beliefs
- ➢ Consolidating alternative beliefs
- ➢ Reformulating delusions as reactions to, and attempts to make sense of, specific experience
- ➢ Assessing the delusion and alternative
- ➢ Using behavioural experiments and empirical testing

Procedure: -Information about socio-demographic variables and clinical details were collected using the socio-demographic and clinical data sheet from the drawn sample selected according to the inclusion and exclusion criteria. PSYRATS and SAPS were administered to assess the severity of the delusion. The GAF scale was administered to

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assess the overall level of functioning at the time of assessment. The drawn samples of 40 patients were further subdivided randomly into two groups of 20 patients each. First group, i.e. experimental group, was given cognitive behaviour treatment with treatment as usual and the second group, i.e. control group, was only on treatment as usual, waitlisted. The techniques for cognitive behaviour therapy were used which consisted 25-30 sessions lasted approximately one hour each. The cognitive behavioral program was tailored according to the need of the patients. Patients of both the group were re-assessed after completion of twelve weeks of training. Follow up data to see the durability of program were taken from all the patients of intervention and control group, who came for follow up after twelve weeks.

Result: - After the evaluation on different phase, the scoring was done and data was encoded, processed and presented in the tables of the result sections.

Sample Characteristics: Mean age of the participants from *Experimental group* and control group was 33.05±1.45 and 29.45±1.77 years respectively. There was no significant difference found between Experimental and control group regarding age (u value=148; z value= 1.41). All of the participants were male. Mean education of the participants from Experimental group and control group was 9.25±.42 and 8.95±.35 years respectively. There was no significant difference found between Experimental and control group regarding education (u value=189; z value= .31).

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

S. NO.	Variables		Control Group	Experimental group	Chi Value (df=1)
1	Marital Status	Married	8	10	0.404^{NS}
		Unmarried	12	10	
2	Occupation	Unemployed	0	9	11.61**
		Employed	20	11	
3	Residence	Rural	14	15	0.125^{NS}
		Semi Urban	6	5	
4	Family Type	Nuclear	5	6	0.125^{NS}
		Joint	15	14	
5	SES	Lower	9	13	1.61^{NS}
		Lower Middle	11	7	
6	Income	>5000	15	14	0.125^{NS}
		<5000	5	6	

NS=Not significant, **= Significant at .01 levels

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 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

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marital status, residence, family type, socio-economic status and income. Only significant difference was found between the Experimental and control groups in occupation (at point .01 levels) that might be during illness period but before become sick they were participating in work.

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

S. NO.	VARIABLES		Control Group	Experimental group	Chi Value (df=1)
1.	Past history of major medical illness	Present	1	2	.360^{NS}
		Absent	19	18	
2.	Past history of psychiatric illness	Present	8	9	.102^{NS}
		Absent	12	11	
3.	Family history of psychiatric illness	Present	2	3	.229^{NS}
		Absent	18	17	

NS=Not significant

Table-2 shows clinical characteristics of the experimental and control groups. It shows that majority of the patients had no history of major medical illness and no family history of psychiatric illness. Regarding history of psychiatric illness, patients were approximately equally divided. Both the group was on treatment as usual. Hence, the experimental and control groups were matched to each other with respect to their clinical characteristics.

Table:3- Showing Baseline Status of Clinical Symptoms of the Experimental and Control Group on Scale for the Assessment of Positive Symptom (SAPS)'s Dimension of Delusion.

Areas of Assessment	Control Group Mean ±SD	Experimental group Mean ± SD	Mann Whitney U Test			
			Mean Rank		U value	z-score
			Control Group	Experimental group		
Persecutory Delusion	3.30±1.08	3.95±0.94	16.95	24.05	129	2.03^{NS}
Delusion of Jealousy	1.10±1.44	0.70±1.26	21.92	19.08	171	0.93^{NS}
Delusion of Guilt or Sin	1.90±1.74	1.20±1.23	22.80	18.20	154	1.31^{NS}
Grandiose Delusion	0.10±0.44	0.20±0.89	22.48	20.52	199	0.03^{NS}
Religious Delusion	1.05±1.09	0.40±1.09	23.78	17.22	134	2.14^{NS}
Somatic Delusion	1.05±1.09	0.40±0.94	18.00	23.00	150	2.35^{NS}
Delusion of Reference	3.50 ±1.27	4.30±0.73	16.58	24.42	121	2.28^{NS}
Delusion of Being Controlled	0(Not Present)	0(Not Present)	-	-	-	-
Delusion of Mind Reading	0(Not Present)	0(Not Present)	-	-	-	-
Thought Broadcasting	0(Not Present)	0(Not Present)	-	-	-	-
Thought Insertion	0(Not Present)	0(Not Present)	-	-	-	-
Thought Withdrawal	0(Not Present)	0(Not Present)	-	-	-	-
Global Rating of Delusion	3.45±0.68	4.10±0.44	15.62	25.38	102	3.18^{NS}

NS=Not Significant

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Table-3 shows comparison on the area of delusions of the scale for the assessment of positive symptoms (SAPS)between experimental and control group at baseline. In the present table baseline scores of both the group in the areas of persecutory delusion, delusion of jealousy, delusion of guilt or sin, grandiose delusion, religious delusion, somatic delusion and delusion of references have been presented. It reveals that there was no significant difference on baseline scores of both the group. While symptoms presented in the table like; thought insertion, thought broadcasting, mind reading, being controlled and thought withdrawalwere not found in patients of both the group.

Table:4 - Showing Baseline Status of Clinical Symptoms of the Experimental and Control Group on Psychotic Symptom Rating Scale (PSYRATS)'s Dimension of Delusion.

Areas of Assessment	Control Group Mean ± SD	Experimental group Mean ± SD	Mann Whitney U Test			
			Mean Rank		U value	z-score
			Control Group	Experimental group		
Preoccupations from Delusions	3.05 ±0.99	3.40 ±0.68	18.75	22.25	165	1.02 NS
Duration of Preoccupations	2.90±1.11	2.95±0.88	20.52	20.48	199	0.01 NS
Conviction	3.25±0.71	3.20±0.69	20.92	20.08	191	0.25 NS
Amount of Distress	3.15±0.98	3.25±0.71	20.48	20.52	199	0.15 NS
Intensity of Distress	2.90±1.02	3.30±0.65	18.45	22.55	159	1.18 NS
Disruption to Life	2.75±0.63	3.20±0.41	17.30	23.70	136	2.61 NS

NS=Not Significant

Table-4 shows comparison on subareas of delusion of PSYRATS 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 area of delusion.Mean scores of experimental and control group suggests that both groups' were similar with regard to their symptomatology.

Table:5 - Showing Baseline Status of the Experimental and Control Group on Global Assessment of Functioning.

Global Assessment of Functioning	Control Group Mean ± SD	Experimental group Mean ± SD	Mann Whitney U Test			
			Mean Rank		U value	z-score
			Control Group	Experimental Group		
	50.50±9.98	49.25 ±8.92	22.20	18.80	166	1.08 NS

NS=Not Significant

Table-5 shows comparison between experimental group and control group at baseline on the scale of global assessment of functioning. It shows that there was no significant difference between the experimental group and control group in their global functioning.

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Durability of Cognitive Behaviour Therapy: To find out the durability of cognitive behavior therapy, comparison between after intervention and on follow up scores for the status of clinical symptoms and global functioning for the experimental and control group were done using Wilcoxon Sign Rank Test.

Table-6 :Showing Status of Clinical Symptoms on Scale for the Assessment of Positive Symptom (SAPS)'s Dimension of Delusion in the Control Group on Post Assessment and on Follow up.

Areas of Assessment	Post Assessment Mean ±SD	Follow up Assessment Mean ± SD	Wilcoxon Sign Rank Test		
			Sign	Mean rank	z-score
Persecutory Delusion	2.70±0.92	2.50±0.88	+	6.83	0.735 NS
Delusion of Jealousy	0.65±1.18	0.00±0.00	-	3.00	2.07 NS
Delusion of Guilt or Sin	2.05±2.06	1.65±0.93	-	1.00	1.00 NS
Grandiose Delusion	0.05±0.22	0.65±0.93	-	1.00	1.00 NS
Religious Delusion	0.70±1.03	0.10±0.44	-	4.00	2.46 NS
Somatic Delusion	0.70±1.03	0.65±0.93	-	1.00	1.00 NS
Delusion of Reference	2.75±1.25	2.45±1.43	+	11.5	1.29 NS
Global Rating of Delusion	3.15±0.67	2.75±0.96	+	12.00	1.58 NS

NS=Not Significant

Table-6 shows the status of clinical symptoms of the control group at post assessment scores and follow-up on the area of delusions of the scale for the assessment of positive symptoms (SAPS). It shows that approximately in all the areas of delusion such as persecutory delusion, delusion of jealousy, delusion of guilt or sin, grandiose delusion, religious delusion, somatic delusion, delusion of references and global rating of delusion, there were no significant differences between post assessment scores and on follow up of the control group. Although analysis of the mean scores suggests minute improvement and deterioration was noticed in few clinical symptoms.

Table-7: Showing Status of Clinical Symptoms on Scale for the Assessment of Positive Symptom (SAPS)'s Dimension of Delusion in the Experimental group on after Intervention and on follow-up.

Areas of Assessment	After Intervention Mean ± SD	Follow-up Assessment Mean ± SD	Wilcoxon Sign Rank Test		
			Sign	Mean rank	z-score
Persecutory Delusion	1.45±0.94	0.70±1.08	-	8.07	3.26*
Delusion of Jealousy	0.10±0.44	0.15±0.48	+	1.00	1.00 NS
Delusion of Guilt or Sin	0.25±0.78	0.20±0.89	-	2.00	.447 NS
Grandiose Delusion	0.20±0.89	0.20±0.89	-	2.00	.44 NS
Religious Delusion	0.25±0.78	0.25±0.78	-	3.00	447 NS
Somatic Delusion	0.25±0.91	0.30±0.97	+	1.00	1.00 NS
Delusion of Reference	1.45±1.05	0.35±0.98	-	9.00	3.78**
Global Rating of Delusion	1.85±0.74	0.85±1.18	-	10.08	3.75**

**** p<.01; * p<.05; NS=Not Significant**

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Table-7 shows the status of clinical symptoms of the experimental group on after intervention evaluation and on follow-up in the area of delusion of the Scale for the Assessment of Positive Symptoms (SAPS). It shows that significant improvement found in the area of persecutory delusion at .01 levels, whereas in the areas of delusion of reference and global rating of delusion significant improvement was noticed at .05 levels. Hence, the therapeutic gains obtained after intervention were not only maintained on follow up but further improvements were also noticed.

Table-8: Showing Status of Clinical Symptoms on Psychotic Symptom Rating Scale (PSYRATS)'s Dimension of Delusion in the Control Group on Post Assessment and on Follow up Assessment.

Areas of Assessment	Post Assessment Mean±SD	Follow-up Assessment Mean ±SD	Wilcoxon Sign Rank Test		
			Sign	Mean rank	z-score
Preoccupations from Delusions	2.35±0.67	1.95±0.88	-	10.50	1.46 NS
Duration of Preoccupations	1.60±0.50	1.60±0.50	-	5.62	1.44 NS
Conviction	2.85±0.48	2.35±0.58	-	6.70	2.35 NS
Amount of Distress	2.45±0.60	1.90±0.78	-	5.50	3.05 NS
Intensity of Distress	2.15±0.74	1.70±0.86	-	6.60	2.32 NS
Disruption to Life	2.20±0.61	1.70±0.86	-	11.46	1.79 NS

NS=Not Significant

Table-8 shows the status of clinical symptoms of the control group at post assessment and follow up assessment on the area of delusions of PSYRATS. The table reveals no significant difference between post assessment and on follow up of the control group on any of the subscales of PSYRATS like; preoccupation from delusions and its duration, conviction, amount and intensity of distress, disruption to life. Although, mean scores in the area of duration of preoccupation was found unchangeable in follow up.

Table-9: Showing Status of Clinical Symptoms on Psychotic Symptom Rating Scale (PSYRATS)'s Dimension of Delusion in the Experimental group on after Intervention and on Follow-up.

Areas of Assessment	After Intervention Mean ± SD	Follow-up Assessment Mean ± SD	Wilcoxon Sign Rank Test		
			Sign	Mean rank	z-score
Preoccupations from Delusions	1.45±0.88	0.65±1.08	-	8.57	3.39**
Duration of Preoccupations	0.50±1.00	0.40±1.00	-	7.00	3.05*
Conviction	1.05±0.94	0.40±1.23	-	8.00	3.35**
Amount of Distress	1.05±0.82	0.35±1.08	-	8.50	3.50**
Intensity of Distress	1.05±0.94	0.40±1.23	-	8.00	3.35**
Disruption to Life	0.95±0.88	0.35±0.93	-	6.00	3.20**

**** p<.01; * p<.05**

Table-9 shows the status of clinical symptoms of the experimental group on after intervention and follow up on the area of delusions of PSYRATS. It shows that the therapeutic gains obtained after intervention were not only maintained on follow up but also further improved at significant levels. The significant differences were noticed approximately in all the areas of delusions of PSYRATS.

Table-10: Showing Status of Global Assessment of Functioning in the Control Group on Post Assessment Scores and on Follow up Assessment Scores.

Global Assessment of Functioning	Post Assessment Mean ±SD	Follow up Assessment Mean ±SD	Wilcoxon Sign Rank Test		
			Sign	Mean rank	z-score
	58 ±4.10	60 ± 9.50	-	9.50	.94^{NS}

NS=Not Significant

Table- 10 shows the status of global assessment of functioning of the control group on post assessment and follow up. It shows that there was no significant difference between post assessment scores and on follow up scores of the control group on GAF. Analysis of mean scores suggests that minute deterioration has been seen on follow up scores.

Table-11: Showing Status of Global Assessment of Functioning in the Experimental group on After-Intervention Scores and on Follow up Assessment Scores.

Global Assessment of Functioning	After Intervention Mean ± SD	Follow up Assessment Mean ± SD	Wilcoxon Sign Rank Test		
			Sign	Mean rank	z-score
	68.7 ± 12.12	80.2 ±13.9	+	8.50	3.62**

**** p<.01**

Table- 11 shows status of global assessment of functioning of the experimental group on after-intervention and on follow up. It shows that the therapeutic gains obtained on after intervention were not only maintained but also further improved on follow up at significant levels. The significant difference was at .01 levels.

DISCUSSION:

Over the last two decades, 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 symptomatology of the patients having delusions in schizophrenia.

CBT for psychosis is an evidence-based treatment primarily designed to target psychotic symptoms such as hallucinations and delusions that persists despite appropriate treatment with antipsychotic medication. Meta analysis suggests that CBT Improves psychotic symptoms, negative symptoms and functional outcome (Wykes et al., 2008).

Table 6 shows the status of delusion of the control group. In the control group there was no significant difference found from post assessment to follow up assessment. The findings of the present study shows, no significant improvement is noticed in psychopathology of the control group in the dimension of the delusion from baseline scores to post assessment scores and from post assessment to follow up assessment. While the mean scores on comparison shows minor reduction in the symptoms of the delusions but this was not at the significant level.

The status of delusional symptoms of the experimental group after intervention and on

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follow up is shown in table-7 of the results section. It shows that the therapeutic gains obtained after interventions were maintained on follow up. The significant differences between after intervention and on follow up scores of the experimental group was found in the areas of persecutory delusion, delusion of reference and in global rating of delusion of SAPS, which was used to assess clinical symptom. However, no changes in after intervention to follow up were reported in the areas of delusion of guilt or sin, grandiose delusion, religious and somatic delusion. In the area of persecutory delusion significant differences was at .05 level and in the areas of delusion of references and global rating of delusion significant differences was at 0.01 level. This indicates that the gains obtained at the end of the intervention program were not only maintained on follow up but also in few areas further significant improvement was noticed. Hence, the intervention program was not only efficacious and generalizable but also durable. The finding in the current study is in consistent with a recent meta-analysis bySitko K.et al where CBT for psychosis (CBTp) shown to be effective at reducing psychotic symptoms.Findings of this meta-analysis indicate small-to-medium effects of CBTp for delusional symptoms, with increasing effectiveness across time.

Numbers of studies and meta-analytic reviews point out to the efficacy of psychotherapeutic intervention for hallucination and delusion. Consistent findings of previous studies show that behavioral and cognitive behavioural therapy along with treatment as usual lead to substantial improvement in positive symptoms of schizophrenia (Zimmermann et al., 2005).

A single-blind, randomised, controlled pragmatic pilot and feasibility trial showed while comparing antipsychotics, CBT, and antipsychotics plus CBT in people with psychosis. It had low attrition rate in which CBT was included as an interventions. All three interventions were broadly found to be safe and acceptable. (Morrison et al., 2018).

Table 8 and 9 shows the status in the dimension of the delusion of PSYRATS. Table 8 shows the status of the control group. In the control group there was no significant differences found from post assessment to follow up. It is noticeable that there were also no significant differences found in the control group from post assessment to follow up. It shows no further improvement was noticed in both stages of assessments (on post assessment and on follow up). Only minor reduction found in the symptoms of the delusions but this reduction was not at the significant level. On the other hand, findings of the experimental group (table-9) shows that the therapeutic gains obtained after interventions were not only maintained but also further significantly improved on follow up. In the experimental group, there were statistically significant difference noticed in all the subareas of the delusions such as; preoccupations from delusions, duration of preoccupations, conviction, amount of distress, intensity of distress and disruption to life. On duration of preoccupations significant differences was at .05 level whereas in others areas significant differences was at .01 level. It showed durability of the cognitive behaviour intervention.

The status of global functioning in the experimental and the control group after intervention and on follow up is shown in table-10 and 11of the results section. Findings of the control group show no significant differences from post assessment to follow up. While analysis of mean scores suggests further decline in global functioning in the control group. On the other hand, findings of the experimental group show improvement from after intervention to follow up. Findings of the experimental group given in table 11, it shows statistically significant difference at 0.01 level. This shows further improvement in intervention group's functioning and high degree of durability of gains through the cognitive-

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behavioural intervention program used in the present study.

CONCLUSION:

There is growing evidence that CBT and addition to pharmacotherapy may be reducing the symptoms not only in general or other in medication resistant patients and readmission rate or readmission at short time follow up in patients with schizophrenia.In the present study, we have tried to assess the efficacy of cognitive-behavioral therapy in patients having hallucination and delusions in schizophrenia. The intervention program used combine cognitive and behavioural components. The primary aim of the treatment is helping the patient to cope with delusions. The package used for the treatment was found significantly effective to improve the cases.The improvements seen after intervention were found to be maintained and in some areas further improving after a follow up period of three months. This trend was evident in all study variables viz. clinical symptoms and global functioning. This shows that the therapeutic gains obtained with the cognitive-behavioural intervention were durable. These findings support the feasibility of implementing cognitive-behavioral intervention with the pharmacological treatment may be beneficial for patients with significant functional and symptomatic impairments.

REFERENCES:

American Psychiatric Association. (1993). Diagnostic and Statistical Manual of Mental Disorders DSM IV, (4th Ed.). APA, Washington.

Andreasen, N.C. (1984). Scale for the Assessment of Positive Symptoms (SAPS). Iowa City, IA, University of Iowa.

Beck, A.T. (1952). Successful outpatient psychotherapy of a chronic schizophrenic with a delusion based on borrowed guilt. Psychiatry, 15, 305–12.

Ellis A. (1957). Rational psychotherapy and individual psychology. J. Individ. Psychol. 13 38–44.

Haddock, G., McCarron, J., Tarrier, N. & Faragher, E.B. (1999). Scales to measure dimensions of hallucinations and delusions: The psychotic symptoms rating scales (PSYRATS). Psychological Medicine, 29, 879-88.

Liberman, R.P., Kopelowicz, A. & Young, A.S. (1994). Biobehavioural treatment and rehabilitation of schizophrenia. Behaviour Therapy, 25, 89-107.

Morrison A P, Law H, Carter L, Sellers R, Emsley R, Pyle M.,(2018)Antipsychotic drugs versus cognitive behavioural therapy versus a combination of both in people with psychosis: a randomised controlled pilot and feasibility study. The Lancet Psychiatry, 5, 411-423

Sitko K, Bewick B.M, Owens D, Masterson C (2020)Meta-analysis and Meta-regression of Cognitive Behavioral Therapy for Psychosis. (CBTp) Across Time: The Effectiveness of CBTp has improved for Delusions. Schizophrenia Bulletin Open, 1-13.

World Health Organization (WHO) (1992). The ICD-10 classification of Mental and Behavioural Disorders, Clinical description and diagnostic guidelines. Geneva: Author.

eISSN 1303-5150

Wykes, T., Steel, C., Everitt, B. & Tarrier, N. (2008). 'Cognitive behavior therapy for schizophrenia: effect sizes, clinical models, and methodological rigor'. Schizophrenia Bulletin, 34, 523–537.

Zimmermann, G., Favrod, J., Trieu, V.H. & Pomini, V. (2005).The effect of cognitive behavioral treatment on the positive symptoms of schizophrenia spectrum disorders: A meta-analysis. Schizophrenia Research , 77, 1–9.