Clinical Practice Guidelines for Cognitive Behavioral Therapy for Psychotic Disorders

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INTRODUCTION

The International Classification of Diseases (ICDs) – 10th Edition – as well as the most recent 11th edition of the ICD include schizophrenia, persistent delusional disorders, acute and transient psychotic disorders (ATPDs), schizoaffective disorder, schizotypal disorders, and others under the broad rubric of psychotic disorders.\textsuperscript{[1,2]} Psychotic disorders are considered as a severe mental illness and almost all psychotic disorders (except ATPD) have a chronic course, characterized by severe impairment in cognitions, affect, and behavior. It has been well researched that despite adequate trials of available pharmacological treatments, a substantial proportion of patients (25%–50%) with psychotic disorders, particularly schizophrenia, continue to experience persistent hallucinations, delusions, emotional withdrawal, and depressive symptoms.\textsuperscript{[3-5]} Moreover, about 5%–10% of patients with schizophrenia do not show any benefit from any antipsychotic medications.\textsuperscript{[6]} Persistence of psychotic symptoms can be disabling and distressing to the patients, can lead to the development of depression, and poses a high risk of suicide.\textsuperscript{[7-10]}

To deal with these difficult and persistence psychotic symptoms in patients with psychotic disorders, various nonpharmacological psychological treatment strategies have been developed. Cognitive behavioral therapy for psychosis (CBTp) is one such treatment option which has been developed for patients with psychotic disorders since 1952.\textsuperscript{[11]} Over the last 20 years, significant research interest has grown in CBTp interventions and the existing literature suggests it to be quite effective in patients with psychotic disorders in reducing positive and negative symptoms and depressive symptoms, increasing adherence to treatment, and improving insight.\textsuperscript{[12-17]} Almost all the recent treatment guidelines of schizophrenia suggest specific recommendations to include CBT for the treatment of persistent psychotic symptoms.\textsuperscript{[18-21]} The clinical practice guidelines for schizophrenia of the Indian Psychiatry Society have also suggested CBT for psychosis in some situations.\textsuperscript{[20]}

The aim of this document is to provide a framework and guidance for a comprehensive assessment and evaluation for CBTp, formulate a treatment plan, and practice CBTp interventions (as applicable to the patient). Initially, we discuss the available evidence for CBTp in different clinical scenarios in patients with psychosis and then discuss the indications and assessment, formulation of a treatment plan, and execution of the same.

These guidelines can be used in any treatment settings, but will require modifications as per the treatment setting and the needs of the patients. These recommendations are primarily meant for adult patients with psychotic disorders. It is expected that the psychiatrists will have a basic understanding of the various cognitive models of psychotic symptoms (delusions and hallucinations) and negative symptoms as these are essential to carry out the CBTp interventions. A detailed description of these cognitive models is beyond the scope of this document and

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interested clinicians can refresh their knowledge by going through the descriptions of available models.\[22-29\]

**Efficacy/Effectiveness of Cognitive Behavioral Therapy for Psychosis**

CBTp has been evaluated in different studies in different clinical scenarios in patients with psychotic disorders and those at risk of developing psychosis.

**Chronic phase of schizophrenia**

Most of the available efficacy/effectiveness studies have been conducted on patients with treatment-resistant psychotic symptoms during the chronic phase of psychotic illness (usually schizophrenia). The meta-analyses of studies focusing on resistant positive and negative symptoms in patients with chronic schizophrenia suggest that there is moderate-to-good effect size for positive symptoms and low effect size for negative symptoms [Table 1].\[15,17,30-34\] On the basis of the existing literature, CBTp can be recommended in patients with chronic schizophrenia/psychosis as an adjunct to antipsychotic medications.

**Clozapine-resistant schizophrenia**

Only one randomized controlled trial (FOCUS-RCT) has evaluated the role of CBTp as an effective augmentation strategy in patients with clozapine-resistant schizophrenia (CRS).\[36\] This RCT compared patients with chronic-resistant schizophrenia assigned to both CBTp and treatment as usual (TAU) (n = 242) and compared with TAU alone (n = 245). The assessors were blind to the interventional arms. At the end point (i.e., 9 months), CBTp led to significant improvement in symptoms, but at 21-month follow-up, CBTp did not show a lasting effect on total symptoms, when compared with TAU. Further, the study did not support the recommendation to routinely offer CBTp to all patients who meet criteria for CRS, and CBTp was not found to be a cost-effective intervention in patients with CRS.\[38\] Based on the limited data on CBTp interventions in patients with CRS, CBTp is not recommended for routine use. However, it can be used in some special cases (such as patients with distressing auditory hallucinations, those not willing for electroconvulsive therapy [ECT], or in whom ECT is contraindicated).

**Prepsychotic phase (prodromal phase/ultra-high risk for psychosis/at-risk mental state**

There is preliminary evidence to suggest that CBTp interventions may prevent or delay transition to psychosis in ultra-high risk patients and those who are at-risk mental state (ARMS). It is also found to be quite cost-effective.\[37-39\] A new CBTp protocol specifically targeted at cognitive biases in ultra-high risk/ARMS patients has been developed, and it has been found to be quite efficacious in reducing subclinical psychotic symptoms in these patients.\[40\] However, based on the limited existing literature and lack of robust evidence to favor CBTp in this group of population, currently, CBTp cannot be routinely recommended, though it can be a reliable and logical treatment option in these patients.\[41,42\]

**First-episode psychosis**

Several studies have evaluated the effectiveness of psychological interventions in patients with early psychosis/first-episode psychosis. These studies have mostly based on CBTp interventions and/or cognitive remediation therapy (CRT). Few studies have found CBTp to be effective over routine care alone or supportive counseling in speeding remission from acute symptoms\[43\] and in the reduction of substance use (cannabis use).\[44\] Considering these findings, CBTp interventions can be useful in patients with first-episoe psychosis when used as an adjunct to routine pharmacological therapy and can aid in the improvement of symptoms, medication adherence, improving self-esteem, and developing insight about the illness, with no potential risks or disadvantages.\[45\] However, these studies are limited by small sample sizes and difficulty in blinding. Due to this, meta-analyses of studies on CBTp and CRT in first-episode psychosis patients have been grossly inconclusive because of the high heterogeneity of interventions used in the studies and outcome measures; therefore, the authors failed to draw any definite inferences or make any recommendations.\[46,47\] Further studies are needed before advocating CBTp routinely to all patients with first-episode psychosis.

**Acute phase of schizophrenia**

The benefits of CBTp during an acute psychotic episode are difficult to study and have been investigated in only a handful of studies. The studies which have investigated the efficacy of CBTp during acute phase of psychosis (i.e., CBTp vs. TAU) have shown variable results ranging from significant improvement to no statistically significant differences.\[48-50\] However, long-term follow-up of these patients fails to show any beneficial effect of CBTp, if carried out during the acute phase.\[50\] Further, there is lack of good-quality RCTs (blinded and with proper raters) to recommend CBTp during acute psychotic episode. However, the National Institute for Health and Clinical Excellence guidelines suggest that CBTp can be started during the acute phase,\[51\] although there is lack of consensus opinion about the same.

**Cognitive behavioral therapy for psychosis for patients with schizophrenia not taking antipsychotic drugs**

One exploratory trial (n = 37) which assessed the role of CBTp in patients with schizophrenia who are not willing to take antipsychotics, suggested CBTp to be an acceptable and effective treatment in such patients with significant beneficial effects noted on total Positive and Negative Symptom Scale for Schizophrenia (PANSS) scores.\[51\] However, the study sample was small to make any specific recommendations.
Accordingly, based on the current level of evidence, it can be said that CBTp may be primarily used in patients with chronic schizophrenia with residual symptoms as an augmentation strategy. It can also be considered in prodromal phase, patients at high risk of developing psychosis, those with a history of poor medication compliance, and patients with first-episode psychosis. Use of CBTp in the acute phase should only be considered based on the level of patient’s cooperation and other feasibility issues [Table 2].

**Table 1: Meta-analyses of studies on cognitive behavioral therapy for psychosis in patients with psychosis**

| Author, year | Number of studies included | Sample size | Results | Remarks/limitations |
|--------------|----------------------------|-------------|---------|--------------------|
| **CBTp studies focusing on positive symptoms** | | | | |
| Gould et al., 2001<sup>[30]</sup> | Seven RCTs | 340 | The mean effect size for change in psychotic symptoms from pre- to post-treatment was 0.65 (95% CI: 0.56±0.71) 6-month post term outcome in four studies: Combined mean effect size −0.93 | The authors did not take the sample size into consideration while calculating the effect size |
| Rector and Beck 2001<sup>[34]</sup> | Seven RCTs | 383 | Group contrast analysis in six of the seven studies demonstrated a large effect size in favor of CBT (mean weighted effect size=0.91) | Two out of seven studies which showed large effect size in favor of CBT were not blinded |
| Pilling et al., 2002<sup>[31]</sup> | Eight RCTs | 393 | CBTp produced significant improvements in mental state in four RCTs (pooled fixed-effect odds ratio=0.27; 95% CI=0.15-0.49) compared to all other treatments CBTp was associated with low dropout rates | Outcome was defined slightly differently in each of the studies Final inference drawn was that on continuous measures of mental state, there is no evidence for increased effectiveness of CBT during treatment, but a clear, positive effect at follow-up Number of potentially modifying variables not examined |
| Zimmerman et al., 2005<sup>[33]</sup> | 14 RCTs | 1484 | Compared to adjunctive measures, CBT showed significant reduction in positive symptoms (mean effect size 0.37) and patients with acute psychotic episode benefited more compared to chronic condition (effect size of 0.57 vs. 0.27) | |
| Jauhar et al., 2014<sup>[31]</sup> | 30 | 2991 | The pooled effect size for overall symptoms was 0.33 (95% CI 0.47-0.19); pooled effect size for positive symptoms was 0.25 (95% CI: 0.37-0.13) | Nonsignificant effects on positive symptoms in a relatively large set of 21 masked studies were found, thereby questioning its effectiveness However, sample size of most of these studies was small |
| Hazell et al., 2016<sup>[32]</sup> | Ten studies on low-intensity CBTp (6-15 sessions) | 631 | Significant between-group effects (CBTp vs. TAU) were found on the symptoms of psychosis, at post-intervention (effect size=0.46) and follow-up (effect size=0.40) | This meta-analysis found low-intensity CBTp with less number of sessions (16+ sessions) can be recommended |
| Lincoln and Peters, 2018<sup>[17]</sup> | Four RCTs: delusions | 228 | Higher effect size in CBT group in both RCTs on delusions and hallucinations; five of seven studies | Marked heterogeneity of studies was found |
| | Eight RCTs: Hallucinations | 588 | Demonstrated maintenance of gains achieved during follow-up | Only three RCTs were powered adequately and others were pilot trials |
| **CBTp studies focusing on negative symptoms** | | | | |
| Jauhar et al., 2014<sup>[31]</sup> | 31 | 3145 | The pooled effect size for 31 studies of negative symptoms was 0.14 (95% CI: 0.26-0.01; P=0.04) | Heterogeneous studies were included (F=47.7%) Small sample size studies were included Studies included were not specifically designed to address negative symptoms |
| Velthorst et al., 2014<sup>[35]</sup> | 30 | 1312 | Beneficial effect of conventional CBT seen in older studies was not supported by more recent studies | |

CBTp – Cognitive behavioral therapy for psychosis; CI – Confidence interval; CBT – Cognitive behavioral therapy; RCTs – Randomized controlled trials; TAU – Treatment as usual

**COGNITIVE BEHAVIORAL THERAPY FOR PSYCHOSIS IN THE INDIAN CONTEXT**

Although there is sufficient evidence from across the world to suggest that CBT can be a suitable augmenting strategy in certain difficult-to-treat cases, studies from Indian scenario are lacking. A thorough search literature on Indian studies on CBTp revealed only three studies till date. These include one open-label study<sup>[33]</sup>, one case series of three patients with CRS,<sup>[34]</sup> and a case report describing a 31-year-old male
with paranoid schizophrenia on 250-mg/day clozapine, yet, had treatment-resistant delusions related to “internet” controlling him who was treated with several sessions of CBTp with good response to CBTp.[54] The open-label study included 51 patients with schizophrenia/schizoaffective disorder, all of whom were provided a structured CBTp intervention program (included intensive psychoeducation, behavioral analysis, activity monitoring and scheduling, assertiveness training, relaxation, distraction techniques, in-vitro systematic desensitization, exposure and response prevention, stress inoculation and skills training, and cognitive restructuring), which resulted in marked improvement in overall adjustment, with significant decrease in the intensity of psychotic symptoms immediately after the completion of CBTp intervention, and the gains achieved were retained at 9-month follow-up assessment.[52] This study also suggested that family members developed positive regard for their patients after the psycho-education sessions in which they were included. The case series of three patients with CRS in whom CBTp techniques were used as adjunctive treatment suggests that it is useful in clozapine nonresponders with refractory-positive psychotic symptoms.[53]

Limited literature from India could be due to: (1) lack of awareness and knowledge about CBT techniques for psychosis; (2) lack of training about CBTp when compared to CBT techniques for depression; (3) as CBTp requires longer time investment on part of the treating mental health professionals, such therapy may not be feasible in every case; (4) low cognitive sophistication in Indian patients having different cultural background and literacy (rural–urban, educated – literate or illiterate); (5) feasibility issues such as difficulty in adhering to regular follow-up, as patients are often dependent on the caregivers’ difficulty on part of the caregivers to invest that much amount of time for therapy sessions, financial issues, distance, etc.; (6) lack of availability of culturally adapted CBTp manuals not developed with regard to the Indian context; (7) low publication rates – it is possible that CBTp is practiced by many clinicians in India, but usually people do not write about their experience of using the same; and (8) lack of acceptance of manuscript reporting CBTp from the Indian context.

### INDICATIONS AND GOALS FOR COGNITIVE BEHAVIORAL THERAPY FOR PSYCHOSIS

CBTp can be used in patients with persistent psychotic symptoms, who have not responded completely to the ongoing medications or when the symptoms are not severe enough in the prodromal phase of illness to warrant the use of antipsychotic medications. Table 1 outlines the usual indications for CBTp. The basic goal of CBTp is to improve the understanding and insight about the psychotic experiences and to cope with the same so that the associated distress and dysfunction is minimized [Table 3 and Figure 1].

### ASSESSMENT AND EVALUATION

Based on the indications, a comprehensive and thorough assessment of the patient is required for CBTp. Usually, assessment can be classified as general assessment and symptom-specific assessment. The general assessment includes collection of information from the patient and his/her caregiver about the type of current symptoms and their severity, response to medications, impact of these symptoms on the patient’s functioning in different areas, and strategies used by the patient to cope up with them [Table 4]. All relevant biological, psychological, and social factors that may have contributed to the onset of illness, premorbid functioning, comorbid psychiatric illnesses (anxiety disorders, depression, substance abuse disorders, etc.), and comorbid medical illnesses should be assessed. Efforts should be made to assess for comorbid depression and anxiety which may be acting as barriers to engage in activities. Studies have demonstrated that patients with negative symptoms may have comorbid anxiety symptoms (not diagnosable any anxiety disorder per se), experience somatic symptoms and feelings of helplessness, and have a negative self-image.[58, 59] Further, apathy and withdrawal symptoms can be because of avoidance developed in order to prevent the positive symptoms and their consequences such as fear/anxiety. Effects of medication (sedation and extrapyramidal symptoms) should also be taken into account as possible reasons for inactivity and social withdrawal.

Patient’s motivation for undergoing CBTp interventions is also an essential aspect which needs to be assessed. Often, the patients are reluctant to remain engaged in such type of therapies, therefore all possible efforts should be made...
to enhance the motivation, which may take few sessions. It is also important to assess the psychological sophistication of the patient so as to modulate the manner in which instructions are to be passed on or to be explained. Intelligence quotient (IQ) and neurocognitions may need to be assessed too, though not routinely recommended as a definite requisite for CBTp interventions. Studies have demonstrated that those with significant cognitive deficits or with mild range of intellectual disability (as per IQ score) can also be undertaken for therapy, but the therapy process has to be modulated and simplified based on the level of understanding, i.e., from cognitive techniques to more of behavioral techniques/instructions.  

A detailed and proper functional analysis of the patient’s behavior is to be done as a part of assessment for CBTp. It includes how time is being spent on a daily basis, particular hobbies and activities one like to do, things which one knows to do well and without help from others, things/activities one like to do but currently had been finding difficulties to do, reasons for not trying to do the previous activities, and activities which his/her family members expect him/her to do more often.

Symptom-specific assessment includes evaluating the symptom severity of symptoms. This can be done by asking the patient to rate the severity of the symptom on a Likert scale. However, if feasible, it is always better to use standard rating scales ([PANSS],[61] Brief Psychiatric Rating Scale [BPRS],[62] and Calgary Depression Rating scale for Schizophrenia[63]). Other scales which can be used are Beliefs about Voice Questionnaire,[64] Cognitive Assessment Schedule,[65] etc. Assessment of insight is an integral part of CBTp. It should usually be done through a proper clinical interview. As with the rating of severity of symptoms, various assessment schedules/scales can also be used for the assessment of insight, such as Schedule for Assessing Insight,[66] Scale to

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**Figure 1:** Indications for cognitive behavioral therapy for psychosis

**Table 3: Indications of cognitive behavioral therapy for psychosis interventions**

| Recommended indications of CBTp |
|---------------------------------|
| Treatment-resistant and treatment-persistent delusions |
| Treatment-resistant auditory hallucinations |
| Residual distressing psychotic symptoms (delusions/hallucinations) |
| Depressive and anxiety symptoms secondary to psychotic symptoms |
| Prominent negative symptoms |
| Prodromal phase of psychosis |
| Subjects at high risk of developing psychosis (siblings and children of patients with psychotic disorders) |
| First-episode psychosis |

**Broad goals of CBTp interventions**[65-67]

- Improve the understanding and insight into the psychotic experiences
- Improve coping with residual psychotic symptoms
- Reduce distress and degree of conviction/preoccupation associated with psychotic symptoms
- Improve self-esteem of the patient
- Maintain the improvement achieved and relapse prevention
Assess the Unawareness of Mental disorders. \[67\] Insight items from BPRS and PANSS, and Beck Cognitive Insight Scale. \[68\]

It is also advisable to include the caregivers in the assessment process to have a better understanding about the level of impairment, preoccupation with psychotic symptoms, coping, avoidance and acting-out behavior, medication adherence, etc.

The assessment needs to be an ongoing process and owing to the nature of the illness, it may take a considerable time to complete the assessment. As the therapy progresses, some of the symptom measures such as preoccupation and conviction need to be assessed frequently or at various intervals so as to determine the change over the course of the therapy. It also enables the therapist to identify the shortcoming of the ongoing strategies and modify the strategies depending on the need and feasibility. A thorough assessment also helps in establishing the very first step in CBTp, i.e., engagement. Engagement includes rapport building and developing a strong therapeutic relationship with the patient with schizophrenia/psychosis.

In the Indian context, depending on the type of the target symptoms for CBTp, caregivers can also be involved in assessment and engaged in the treatment, as they form an integral part of the treatment, as they are often involved in supervising and monitoring the patient at home, bringing the patient to the treating agency, and bearing the financial costs of treatment. Table 4 and Figure 2 outline the basic principles of assessment for CBTp.

### FORMULATING A COGNITIVE BEHAVIORAL THERAPY FOR PSYCHOSIS THERAPY PLAN

Formulation of CBTp plan involves deciding about treatment setting, indications for CBTp interventions, techniques to be used, and areas to be addressed. Patients and caregivers should be the part and parcel of preparing the plan. Therapy needs to be tailor-made as per the needs of the patient and based on the feasibility issues. Cognitive sophistication of the patient is also essential to decide the techniques for CBT interventions. Based on the assessment, a CBT psychological case formulation and case conceptualization should be attempted. CBT formulations provide an explanation of why a problem has occurred and what are the factors responsible for the maintenance of the same. It also guides the intervention and predicts potential difficulties that might arise. It is a hypothesis based on the information gathered during assessment and may change/modify during the course of intervention. The formulation needs to be individualized, based on the unique life experiences of each patient. However, it must be remembered that CBTp is an adjunct treatment and not a substitute for pharmacotherapy.

### Choice of treatment settings

The basic principle of choosing a treatment setting for CBTp interventions is to provide CBTp sessions in the least restrictive setting and feasible setting as per the needs of the patient and caregivers. CBTp interventions can be carried out as an outpatient treatment in regular follow-up visits or can be initiated in inpatient settings and later continued as an outpatient treatment. Given the scarcity of psychiatric beds in India, and common indications for inpatient care in patients with psychotic disorders being acute exacerbation of psychosis or acute psychosis, usually, CBTp interventions should be carried out on an outpatient basis. However, inpatient care can be considered based on the needs and the feasibility.

### GENERAL PRINCIPLES OF COGNITIVE BEHAVIORAL THERAPY FOR PSYCHOSIS

The general principles of CBTp psychotherapy are similar to that of the general and usual principles of psychotherapy. These are establishing a psychotherapeutic contract and developing a strong therapeutic alliance. Psychotherapeutic contract includes obtaining the consent for therapy and explaining the nature of therapy, boundary issues related to therapy, and mutually agreed timing of sessions. Regularity of appointment schedules should be made; however, patient’s breaking appointments and being tardy should be anticipated and planned accordingly. \[69\]
Establishing a strong therapeutic alliance is one of the most important steps in CBTp, as patients with psychosis are often unfamiliar with discussing their experiences in a therapeutic context. A trustworthy therapeutic relationship acts as a driving force to engage the patient in the CBT process. The therapist should act attentive and reassuring, but should not argue/cajole or try to reason with a delusional/hallucinatory experience in the initial sessions, no matter how absurd the ideas may seem. If the patient prefers to remain silent, then the therapist should accept it and should not try to engage/shame the patient into talking. Certain bizarre behavior or attitudes of the patient may seem to be humorous, but the therapist should maintain objectivity and should never ridicule or succumb to laughter. Any activity which can encourage patient’s self-esteem should be supported, such as grooming, clothing, sticking to activities/instructions given, positive achievements or life events, etc. False promises should never be made as it can hamper the therapeutic relationship. All possible efforts should be made to gain the trust of the patient.

**Components of Cognitive Behavioral Therapy for Psychosis Intervention**

After the assessment and engagement of the patient, the basic key components of CBTp include engagement, psychoeducation, cognitive therapy, behavioral skill training, and relapse prevention strategies [Table 5]. Of these, the cognitive therapy and behavioral skill training form the core of CBTp.

**Structural and Procedure of Cognitive Behavioral Therapy for Psychosis**

The structure of CBTp is almost similar to the structure of CBT for depression and anxiety. It is an active, structured, and time-limited intervention usually lasting for 6–9 months’ duration, delivered in an individualized tailor-made format. The initial sessions are focused on the development of therapeutic alliance, developing a trustworthy relationship with the patient, gentle exploration of the psychotic experiences, and guided discovery.
The role of therapist is (1) to validate the symptoms of the patient; (2) to create an atmosphere of trust, openness, and hope; (3) to do a formal assessment of symptoms and reach to mutually agreed-upon treatment goals; (4) to educate the patient about the role of stress and its effect on his/her symptoms; and (5) to reduce perceived stigma by normalizing the abnormal experiences.

A typical CBTp session is outlined in Table 6,[67,71-73] Initial sessions are usually open and exploratory without any fixed focus on clinical issues. Continuity is to be maintained between sessions by exploring areas addressed in the previous session and asking for feedback from the patient over the past-week experiences. However, it is to be remembered that there should be more flexibility with regard to therapy goals in patients with psychosis as compared to patients with depression/anxiety disorders.

SPECIFIC STRATEGIES FOR SPECIFIC SYMPTOMS

Persistent delusions
The CBTp techniques used for resistant and persistent delusions in psychotic patients are focused on reducing the conviction and centrality of the delusions [Table 7]. Over the course of therapy, the focus should shift toward making the patient aware about the cognitive biases and distortions and carrying out behavioral experiments.

SPECIFIC COGNITIVE AND BEHAVIORAL STRATEGIES FOR PERSISTENT HALLUCINATIONS

Patients with persistent hallucinations usually report various auditory phenomena ranging from hearing clear voices of familiar/unfamiliar persons, hearing music/sounds, tapping, buzzing, or elementary type of auditory hallucinations. The CBT techniques are developed to reduce the distress arising out of experiencing such phenomena [Table 8]. The time to generalize these strategies and to master them varies from individual to individual and also depends on patient’s motivation and cognitive capability. Family support and a good home environment help in maintaining the progress of the therapy.

SPECIFIC COGNITIVE AND BEHAVIORAL STRATEGIES FOR NEGATIVE SYMPTOMS

CBTp techniques for patients with schizophrenia with predominant negative symptoms have been proposed with proven efficacy.[74,75] The cognitive and behavioral strategies usually employed for the management of negative symptoms are similar to strategies used in depression. These include (1) self-monitoring of activities, (2) mastery and pleasure techniques, (3) activity scheduling, (4) graded task assignments, (5) social skills training, and (6) assertiveness training techniques. These techniques are required to be tailored according to the level of comfort and cooperation of the patient. Eliciting reasons for inactivity and decreased motivation for routine activities should be carried out without confronting and at times, token economy can be employed with rewards for specific activity undertaken by the patient. Simple behavioral experiments can be carried out to boost the confidence and to stimulate interests in such patients. Those with comorbid depressive and anxiety symptoms, different cognitive and behavioral strategies should be used for better results.

BOOSTER SESSIONS, TERMINATION OF THERAPY, AND RELAPSE PREVENTION

As the therapy progresses, the patient may show improvement or no significant improvement. In case of no significant improvement, other causes of persisting symptoms should be looked for, such as comorbid conditions, ego strengths, and poor insight. In case of improvement and the therapist acknowledges that the therapy is likely to terminate soon, the therapist should start spacing the frequency of sessions, once improvement is stabilized. Sudden and complete discontinuation should

| Components                  | Description                                                                                                                                                                                                 |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Engagement                  | It includes rapport building and developing a strong therapeutic relationship with the patient with schizophrenia/psychosis                                                                                  |
| Assessment                  | As mentioned above in Table 4                                                                                                                                                                               |
| Psycho-education            | Educating about the nature of illness, symptom dimensions, course of the illness, role of medications, issues related to adherence, long-term outcome, etc.                                                    |
| Cognitive therapy           | It includes analyzing the cognitive schema of the patient, understanding the cognitive errors, and carrying out verbal challenge and cognitive behavioral experiments                                                   |
| Behavioral skills training: | It includes behavioral experiments and behavioral strategies based on the nature of the presenting concern/complaint                                                                                        |
| Symptom specific            | It includes relaxation training, graded exposure, activity scheduling, distraction techniques, and problem solving                                                                                         |
| Relapse prevention strategies| It includes identification of early warning signs of relapse and development of plans in response to the indicators of relapse                                                                                 |
never be done. The patient should be explained the rationale of spacing of sessions. The patient should be given the option to meet the therapist once in 2 weeks, then once a month, and then at longer intervals. This would prevent the patient from being dependent on the therapist. In the interval follow-up visits, booster sessions should be carried out so as to check the gains achieved and whether the improvement and cognitive restructuring so achieved is retained or not. In case of early signs of relapse, appropriate strategies such as more intensive psycho-education, more frequent booster sessions, and identifying the predictors of relapse and handling them should be done accordingly. The detailed summary flowchart of CBTp interventions is shown in Figure 3.

**NEWER FORMS/METHODS IN COGNITIVE BEHAVIORAL THERAPY FOR PSYCHOSIS INTERVENTIONS**

Some newforms/methods of CBTp have been developed in the recent years. These are (1) AVATAR therapy,[76] (2) Acceptance and Commitment Therapy,[77] (3) Mindfulness-based Cognitive Therapy,[78] and (4) Metacognitive Training.[79] Evidence regarding the usefulness of these new forms of CBTp interventions is being evaluated.

Newer delivery techniques of CBTp such as Internet-based intervention and through mobile technology software (Actissist,ClinTouch Software,Manchester, UK) have also been suggested with good results.[80,81] These newer forms of delivery techniques might prove

| Phase | Techniques/steps to be used |
|-------|-----------------------------|
| Assessment phase (initial sessions) | The therapist should try to understand the patient’s life as a whole, not just focusing on the delusions. Evaluate the past life events and patient’s reaction to them. |
| Evaluation | Explore the predelusional beliefs by inquiring into daydreams, fantasies, and usual perceptions about others/self/society. |
| Assessment phase (later sessions) | Inquire about the triggering events of the delusions in the current scenario (such as walking in the market and sensations in the legs). |
| Consequences - emotional (anger/irritability/sadness/fear) and behavioral (avoidance/acting out/confronting with others) to be assessed. |
| Interventional phase (initial sessions) | After assessing and interpreting patient’s delusional beliefs and past and current events, gently probe for the evidence regarding the delusions by asking questions such as “What makes you believe in this way?” and “What is the evidence, would you like to elaborate?” Possible alternative explanations are asked: “Can there be any other reasons for their behaviors towards you?” and “Are you able to think any other explanations other than what you are saying?” The patient is allowed to interpret any alternative explanations. Further, ask about the level of surety, which the patient has for his/her previous beliefs and alternative explanations. Give explanation about the falsity of his/her assumptions. Allow the patient to agree or refute the therapist’s explanation. Similar practice sessions are carried out till the patient understands the link between thoughts, beliefs, and behaviors. |
| Homework assignments are given to list down similar experiences and analyze them. |
| Interventional phase (later sessions) | Gradually, the patient is educated about the cognitive model and the role of cognitive biases and distortions (such as jumping into conclusions, selective abstraction, and maximization). The certainty of patient’s beliefs begins to break down, and more balanced and less distressing interpretations are developed. Behavioral experiments are carried out toward the end of the therapy to test the accuracy of the new interpretations and invoke cognitive change to the delusional beliefs.[77] It should be taken into account that weakening of delusions is a difficult task and therapists should not be of the mindset that a single brilliantly designed experiment will be effective[77]. The focus should be done on achieving small goals slowly. |

**Table 6: Outline of a typical cognitive behavioral therapy for psychosis session**

| Duration of session can range from at least 15 min to 30 min; sessions may include breaks as per the need in a particular patient. |
| Every session should start by reviewing the patient’s mental state and mood on the day of session and inquiring about mood over the previous week/days or since last session. |
| Review the medication adherence. |
| Explore the areas addressed in the previous session and ask for feedback from the patient over the past-week experiences. |
| Review the homework assignment. |
| A structured agenda from the mutually agreed-upon goals is to be focused (problem listed during assessment sessions and preferably be decided in the previous session). |
| The patient is allowed to describe his/her psychotic experiences freely. |
| The therapist then emphasizes upon the cognitive model of the specific psychotic symptom by directing or creating a link between predominant mood during the psychotic experience, thoughts, feelings, and behaviors. |
| Underlying beliefs are explored by Socratic questioning in an empathetic manner (e.g., “neighbors are dangerous,” “people look towards me when I am step out of my home,” and “people can read my mind”). |
| These beliefs are then analyzed and linked with the patient’s past and present difficulties. |
| The patient is asked to analyze any alternative possible explanations for his/her beliefs. If the patient does not come upon with any explanation, guided nonjudgmental explanations are provided by the therapist, leaving the patient to think to accept or refute the explanation provided. |
| Behavioral strategies are explained and homework is assigned to the patient to test his/her beliefs experimentally using the strategies. |
| The session should end with summarization of the discussion in the session and asking the patient’s about his/her understanding of the strategies explained to him/her or by asking him/her to enumerate things to do if he/she experiences similar symptoms. |
| Focused and limited homework tasks should be given. |
| Brief overview of the next session should be provided and the topic to be discussed in the next session should be mutually agreed upon. |

Table 7: Cognitive behavioral therapy for psychosis techniques for persistent delusions

| Phase | Techniques/steps to be used |
|-------|-----------------------------|
| Assessment phase (initial sessions) | The therapist should try to understand the patient’s life as a whole, not just focusing on the delusions. |
| Evaluation | Explore the predelusional beliefs by inquiring into daydreams, fantasies, and usual perceptions about others/self/society. |
| Assessment phase (later sessions) | Inquire about the triggering events of the delusions in the current scenario (such as walking in the market and sensations in the legs). |
| Consequences - emotional (anger/irritability/sadness/fear) and behavioral (avoidance/acting out/confronting with others) to be assessed. |
| Interventional phase (initial sessions) | After assessing and interpreting patient’s delusional beliefs and past and current events, gently probe for the evidence regarding the delusions by asking questions such as “What makes you believe in this way?” and “What is the evidence, would you like to elaborate?” Possible alternative explanations are asked: “Can there be any other reasons for their behaviors towards you?” and “Are you able to think any other explanations other than what you are saying?” The patient is allowed to interpret any alternative explanations. Further, ask about the level of surety, which the patient has for his/her previous beliefs and alternative explanations. Give explanation about the falsity of his/her assumptions. Allow the patient to agree or refute the therapist’s explanation. Similar practice sessions are carried out till the patient understands the link between thoughts, beliefs, and behaviors. |
| Rotation correction: 0 |
| Duration of session can range from at least 15 min to 30 min; sessions may include breaks as per the need in a particular patient. |
| Every session should start by reviewing the patient’s mental state and mood on the day of session and inquiring about mood over the previous week/days or since last session. |
| Review the medication adherence. |
| Explore the areas addressed in the previous session and ask for feedback from the patient over the past-week experiences. |
| Review the homework assignment. |
| A structured agenda from the mutually agreed-upon goals is to be focused (problem listed during assessment sessions and preferably be decided in the previous session). |
| The patient is allowed to describe his/her psychotic experiences freely. |
| The therapist then emphasizes upon the cognitive model of the specific psychotic symptom by directing or creating a link between predominant mood during the psychotic experience, thoughts, feelings, and behaviors. |
| Underlying beliefs are explored by Socratic questioning in an empathetic manner (e.g., “neighbors are dangerous,” “people look towards me when I am step out of my home,” and “people can read my mind”). |
| These beliefs are then analyzed and linked with the patient’s past and present difficulties. |
| The patient is asked to analyze any alternative possible explanations for his/her beliefs. If the patient does not come upon with any explanation, guided nonjudgmental explanations are provided by the therapist, leaving the patient to think to accept or refute the explanation provided. |
| Behavioral strategies are explained and homework is assigned to the patient to test his/her beliefs experimentally using the strategies. |
| The session should end with summarization of the discussion in the session and asking the patient’s about his/her understanding of the strategies explained to him/her or by asking him/her to enumerate things to do if he/she experiences similar symptoms. |
| Focused and limited homework tasks should be given. |
| Brief overview of the next session should be provided and the topic to be discussed in the next session should be mutually agreed upon. |
Persistent delusions

- Cognitive strategies (Table 7)
- Identifying the links between thoughts, feelings and action/behavior
- Testing and reframing beliefs and generating alternative explanations
- Carrying out behavioral experiments

Both delusions and hallucinations

Assess the most distressing psychotic symptoms

- Maintaining voice dairy
- Exploring the beliefs and gently challenging these beliefs; encouraging self-analysis
- Behavioral experiments
- Distraction techniques

Delusions

- Activity scheduling
- Mastery and pleasure techniques
- Graded task assignments
- Social skills training
- Eliciting reasons for inactivity; enhancing motivation
- Behavioral stimulation

Hallucinations

- Patient with psychosis with indications for CBTP interventions

Detail Assessment and evaluation - Identify reasons of treatment-resistant psychotic symptoms and co-morbid psychiatric conditions which may be affecting in maintenance of psychotic symptoms; Complete behavioural and functional analysis and CBTP case formulation

Establish strong therapeutic alliance with intensive psycho-education

Focus on the most distressing target psychotic symptoms requiring CBTP

Figure 3: Detail Flowchart/Summary of CBTP interventions
to be beneficial to those patients who discontinue face-to-face therapy sessions and offer new possibilities to extend the reach beyond traditional mental health service delivery. However, the drawbacks of these newly proposed CBTp interventions are that these are costly interventions and they lack the basic essential therapeutic alliance. However, these CBTp interventions are still at the grass-root level and further evaluation is required before advocating and implementing these in the Indian scenario.

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