



# Adaptation of cognitive behaviour therapy in childhood obsessive-compulsive disorder: a case study

## Abstract

Cognitive behaviour therapy (CBT) has been proved to be one of the most well-researched and effective therapy. It has been found effective in many clinical conditions in children and adolescents as well. Application of therapeutic processes gets complicated by the facts that childhood and adolescent problems do not come in neat packages and tend to overlap and/or coexist. For instance, there is much overlap among clinical problems like anxiety, depression, behavioural problems, and between reading and writing difficulties, and attention and hyperactivity. Many behavioural and emotional disturbances in children are also associated with specific medical conditions. The relationship between physical and/or medical conditions and emotional and behavioural disorders in children and adolescent has been documented in various studies. This demands attention to the therapeutic intervention to the childhood problems with greater monitoring and modulation. Use of CBT in childhood and adolescent problems for efficiency and convenience may be grouped into externalising and internalising disorders, and the management techniques may be formulated and tailored to meet the two opposing dimensions. In this case study, index client was an eight years old girl who presented with compulsive behaviour along with anxiety and fear, and the application of CBT techniques, its adaptability and efficacy in this case of obsessive-compulsive disorder (OCD), with specific phobia would be discussed.

**Keywords:** Therapy. Adolescent. Specific Phobia.

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## INTRODUCTION

Anxiety disorders represent one of the most common types of childhood disorders.[1,2] There are studies that suggest childhood anxiety disorders are often associated with social, academic, and family interaction impairments.[3-5] The conditions, due to manifestation at a very early age, tend to predispose children to develop anxiety disorders, also obsessive-compulsive disorder (OCD) later in adulthood [2,6,7] Therefore, early intervention to treat these disorders would be beneficial. However, there is a dearth of study representing application of cognitive behaviour therapy (CBT) in children. This underrepresentation may be attributed to the belief that the younger children are not developmentally mature enough to benefit from cognitive behavioural interventions.[8,9] As a result, the practitioners often feel the difficulty due to lack of any evidence-based research of specific model and approach which poses a challenge in the application of CBT in children. Thus, there is a need to formulate CBT in such a way for children and adolescents so as to suit their clinical needs and match their level of cognitive development.

The current case study aims at finding the efficacy of CBT, adapted model for children as an intervention procedure in a case with OCD with fear and anxiety.

## DETAILS OF THE CASE

Index client, an eight years old girl, studying in class IV, hailing from a suburban background, middle socioeconomic status family, was brought with complaints of difficulty in concentration upon tasks, decreased interest in studies, and deteriorating academic performance for last one and half years. On further probing it was revealed that there were frequent dreams about ghosts, fears about the ceiling fan breaking or bed breaking, occasional bedwetting for last one year and excessive hand washing and feeling that her hands were dirty for last five months, with treatment history indicative of regular dose of selective serotonin reuptake inhibitor (SSRI) and atypical antipsychotic since the last two months, past medical history suggestive of single episode of febrile convulsion and no past psychiatric illness, family history suggestive of anxiety in mother. Her academic history was suggestive of recent complaints from school due to deteriorating academic performance, hobbies included dancing and swimming, with age appropriate and cooperative play behaviour being present.

The child gave her assent and consent was taken from her mother who was her informant. The assessment and therapeutic procedure was explained. The findings on

psychological assessment using the Children's Yale-Brown Obsessive Compulsive Scale (CY-BOCS)[10] is given in Table 1.

A detailed analysis of the behaviour was done to find out the OCD symptoms in the context of the child's personal attributes, physical health, family, social, and school functioning. This helped in understanding the child's overall health, adaptation, strength, and limitations.

### Psychotherapeutic formulation: therapeutic intervention

The client had an overall anxious and fearful affect, and experienced fear in several contexts. This could be due to lack of self-confidence or social learning. Also, from the history, it can be seen that the obsession, compulsion, and specific fears may be arising from conditioning of stimulus. Thus, breaking the conditioning process and bringing in change in the self-confidence could be helpful for the client to deal more effectively with the stressors.

The therapeutic model adopted was based on learning principles that might have played a role in forming the phobic reaction, obsessive thoughts, and compulsive acts. Therefore, using similar learning principles to relearn the maladaptive behaviour might be helpful in reducing the symptoms. On the basis of this therapeutic formulation, the goals were set as:

#### Short-term goals

- Reduction of hand washing behaviour
- Reduction of obsessive thought of contamination
- Reduction of fear to specific situations like darkness

#### Long-term goals

- Improving self-confidence
- Improving coping skills

### Therapeutic sessions

- Sessions held at the Outpatient Department, Institute of Psychiatry, Kolkata, West Bengal, India.
- Total number of sessions taken were 11.
- Time per therapy session was 45-50 minutes.

### Management plan

- Psychoeducation
- Parental counselling

### Modus of therapy

CBT

**Table 1:** The findings on psychological assessment using CY-BOCS

Symptom checklist	Contamination obsession Washing/cleaning compulsion
Obsession scale score	10
Compulsion scale score	10
Total severity score	20 (Moderate; range: 16-23)

CY-BOCS: Children's Yale-Brown Obsessive Compulsive Scale[10]

### Techniques

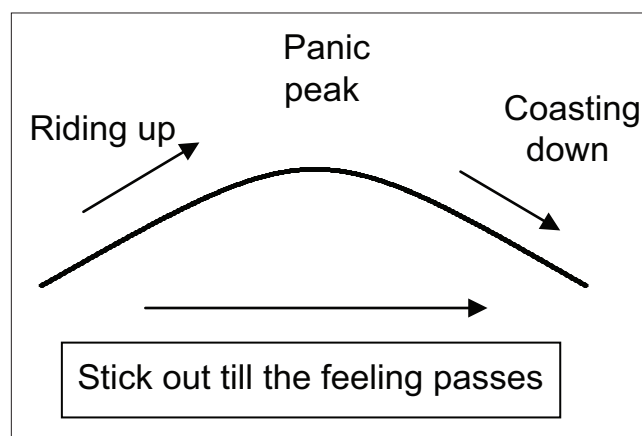
- Exposure and response prevention with use of acronym and metaphor
- Progressive muscle relaxation
- Systematic desensitisation
- Guided imagery and ego strengthening script

#### Exposure and response prevention with acronym and metaphor

The client was explained that her fear and worry was like a hill, it is difficult to go up the hill but as she reaches the hill top it is easy to come down from the hill. So, she must face the fear that will give her more anxiety but as she starts climbing up gradually she will reach the top and then it will be an easy ride down the hill (Figure 1).[11] Then, she was showed how the thought she was having of being contaminated or dirty was unrealistic and irrational, and she was asked to call it "Mr. Disturb". She was explained how every time she gets the thought she should think it "Mr. Disturb" is talking not my thought. I do not need to follow it. She was asked to keep a record of how many times the thought was coming to her mind and how many times she was being able to label it as "Mr. Disturb's thoughts and not wash hands". Thereafter, she was taught the second part of the acronym, i.e. insist that you are in charge. She was explained that the thought would come apart from thinking that it is "Mr. Disturb's thought she should also not give importance to it". She should hold the control over it and think that I can control the situation and not succumb to the thought. This was emphasised again using the worry hill showing how riding up the hill is scary, she may think that she will fall but she should instead think that I will not fall and will reach the top soon and then ride down the hill smoothly. After this, the third and fourth part of the acronym, defy the thought and reward yourself was taught to the client. She was explained that now besides thinking she is in charge of "Mr. Disturb's thoughts she will now not follow the thought" (Figure 2).

#### Progressive muscle relaxation

Thereafter, the feared stimulus hierarchy was formed. The client was taught progressive muscle relaxation. The client was taught how there was an increase in arousal in body when there were cues to the feared stimulus or exposure to the



**Figure 1:** The hill.

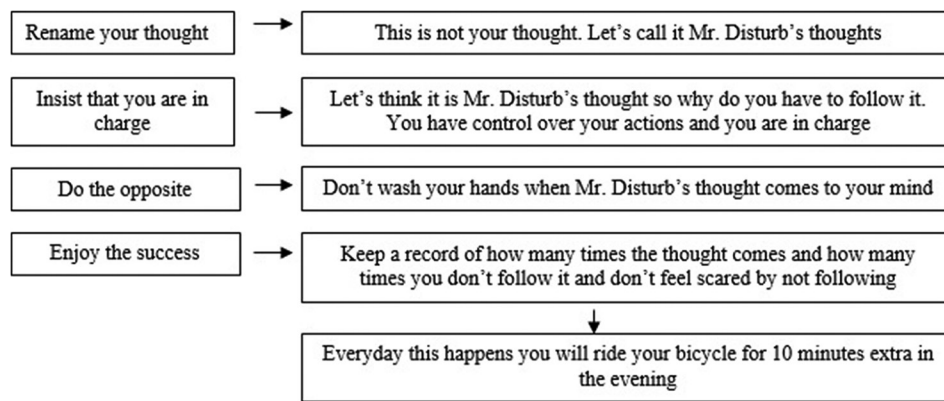


Figure 2: Mr. Disturb.

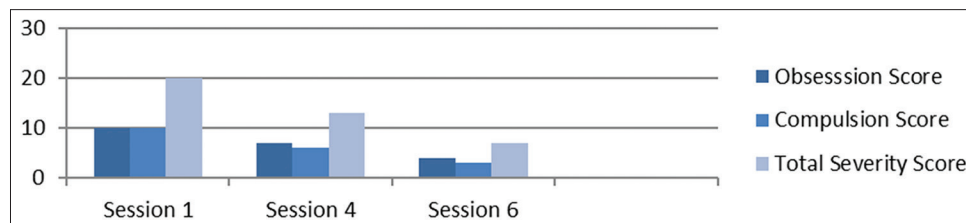


Figure 3: Outcome of therapy.

feared situation. She was showed how the progressive muscle relaxation might be helpful in reducing the arousal and made her more adaptive in dealing with the anxiety. A script for children was used to give instructions, e.g. for relaxing hands she was instructed the following, "Pretend you are squeezing a whole lemon in your hand. Squeeze it hard. Try to squeeze all the juice out. Feel the tightness in your hand as you squeeze. Now drop the lemon and relax. See how much better your hand feel when they are relaxed."

#### ***In-vitro systematic desensitisation***

After the child went through the relaxation training, in-vitro systematic desensitisation was introduced. The client was first put in a relaxed state. Then the client was asked to visualise a dark room gradually through guided imagery. The client visualised being in a dark room while in a relaxed state for ten minutes and then she was asked about her distress. She reported that she felt scared but her heart beat was not very fast and she did not feel very scared as she felt when she was at home in a dark room, i.e. when there was a sudden power cut. The informant was then instructed to gradually expose the client to darkness for short durations after she has been put into a relaxed state. She was explained how after she was relaxed initially to make her visualise that she was entering her bedroom where the light was switched off and getting her bag to the drawing room. Then this was gradually to be followed by visualisation of her sitting in a room where suddenly there was a power cut and there was darkness, and she was waiting for her mother to get the candle. Then the informant was instructed to make the client relaxed and instead of making her visualise being in a dark room sending her in a dark room to bring something and to gradually increase the duration or frequency of sending her to a room where the lights were off. However, the informant

was reported to practice this in a very cautious way by ensuring that the client was in a relaxed state first and also to increase the frequency of sending her in dark rooms very gradually.

#### ***Guided imagery and ego-strengthening script***

The script specialised for the client for her specific age and cognitive level was used focussing on:

1. Overcoming shyness,
2. Writing an examination,
3. Help develop healthy self-concept, confidence, and self-esteem.

#### **Outcome of therapy**

The therapy was conducted over 11 sessions so far and it yielded an improvement in the client's overall school performance. There was a reduction in client's general level of fear and anxiety experience. Her bed wetting and sleep terror had reduced over sessions. Therefore, relaxation training and study skills had helped client's functioning. The client reported of not having any intrusive thoughts of contamination and stopped the compulsive hand washing (Figure 3).

## **DISCUSSION**

From the case presented above, it can be seen that there was reduction in the target symptoms thereby showing effectiveness of CBT in children with psychiatric problem. But, it is important to note that in this case CBT could not be administered in the usual standardised way; it had to be modified to meet the cognitive needs of the child and also combine with other therapeutic techniques that do not fall directly in the cognitive paradigm.

A very significant finding of this case study indicated that application of CBT techniques had to be done in a very concrete and structured way because the client lacked in abstraction, inductive and deductive reasoning, and hypothetical thinking.

There is mounting evidence in literature to support CBT as an important component of the treatment regimen for anxiety, depression, and behavioural problems in youth. But, unfortunately, the availability of specific models and recorded evidence is quite limited. To generalise the findings more studies would be needed.[12] Hence, there is a need to develop standardised models and packages for application of CBT in children.[13]

CBT is an evidence-based practice that has been proved effective for psychiatric as well as many other bio-medical conditions. Research evidence and practice show CBT to be effective in children and adolescents also. There should be more research in this field to develop standardised models of CBT in anxiety, depression, and other clinical conditions to use for youth.

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