

## Cognitive Impairment in Children

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Cognitive impairment, in other words also known as 'intellectual disability', describes the child's condition where his intellectual functioning level as well as adaptive skills are significantly lower than that for a child of his chronological age. These are the most common developmental disorders which occur in an approximate ratio of 1:1000 children [1].

There are various levels of developmental delays that can be identified in a child's social skills, emotional development, communication capabilities, physical function as well as academic skill sets [2].

The Center for Disease Control defined cognitive impairment among 8-year-old children by a score of 70 or below on a test of intellectual capability, which is commonly known as an IQ test [1] further defined by specific IQ ranges [2].

- a. Mild Cognitive impairment -IQ of 50 to 70
- b. Moderate Cognitive Impairment -IQ of 35 to 55
- c. Severe Cognitive Impairment -IQ of 20 to 40
- d. Profound Cognitive Impairment -IQ below 20

Cognitive impairment is caused by interplay of various factors ranging from genetic/chromosomal disorders to injuries/illnesses and even during pregnancy or early infancy.

People suffering from cognitive disorders have a typical set of symptoms which can be easily recognised as early as the child is 2 years of age. Some of these symptoms can occur at varying levels;

1. Delayed milestones
2. Short attention span & lack of curiosity
3. Difficulty in understanding and adapting to social rules
4. Difficulty even in retaining information as well as learning simple routines
5. Inconsistent/disturbed communication skills
6. Worry and constant irritabilities
7. Rigidity and perfectionism
8. Hyper vigilant
9. Fear of failure and losing control

Treatment of such cognitive disorders is through Cognitive Behavior Therapy which teaches the patients to use a variety of desensitization techniques as well as to replace the destructive patterns and imbibed perceptions with positive, more realistic expectations of self. CBT is a combination of behavior therapy and cognitive therapy. According to Kendall and Suveg [3], "The overall goal of the treatment program is to teach children to recognize signs of anxious arousal and to let these signs serve as cues for the use of anxiety management strategies".

The central treatment goal of CBT is to help children build a *coping template* so that these children can later on develop or modify existing-cognitive structures for future processing and such an event can be easily accomplished by making the child practice the new way of thinking in the presence of a behavior therapist; the other goals to be achieved include:

- a. **Self-talk:** here the child is retrained to restructure his internal dialogues, thus achieving the goal of positive and self-affirming thoughts.
- b. **Home-work:** This helps in key outcomes which will have a significant impact on treatment outcome
- c. **Self-esteem:** Most crucial as most of the children are unmanageable, where their daily activities are significantly reduced/arrested. Therefore, it is imperative to help the child develop a new pattern to facilitate changing perceptions.
- d. **Modeling and role play:** The child's role-playing, discussion of his feelings and incorporating stress reduction techniques. Modeling aids in desensitization process as well as cognitive reshaping<sup>3</sup>. The advantage is that since it is done in safe and therapeutic setting, the child is able to rehearse anxious scenarios realistically thus making the child more proficient which significantly reduces the anxiety level.

Some of the other goals of CBT done on higher aged group children include

- a. Realistic problem solving capabilities and strategies
- b. Mind-body concentration
- c. Progressive and cue-controlled relaxation techniques
- d. Diaphragmatic/alternate nostril breathing
- e. Exposure therapy etc.,

Children can be successful at the end of different phases of CBT and can lead a fulfilling life; with extra and individualised help for them to acquire new learning skills. Extra time, repeated instructions and appropriate modeling definitely helps these children to master and hone some important skills such as maintaining oral and personal hygiene, practise of personal safety measures during walking/climbing stairs and even some social manners. Care should be taken by the parents/care givers as well as behavioural therapists to break down the bigger tasks into small easier ones so that the child imbibes it in his way. Parents can go an extra yard in imbibing support to them by actively supporting and getting involved in their academic learning.

Cognitive disorders in children, therefore, are a multi-layered and a complex impairment, but nonetheless needs equal reciprocation and adjustment from the parents too. The parents' participation and their time to adjust is the preliminary step in reaching a positive goal and treatment benefit for the child. As healthcare providers we can definitely aid and better the quality of educational programs, providing quality health care so that these children also can enjoy and lead happy and fulfilling lives.

### Bibliography

1. Center for Disease Control
2. Diagnostic Criteria from DSM-IV TM (1994)
3. Kendall PC and Suveg C. "Treating anxious disorders in youth". In PC Kendall (Ed), Child and adolescent therapy. New York: The Guilford Press (2006): 243-294.

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