Research Paper Education

Attention-Deficit Hyperactivity Disorder Among Children & Teaching Strategies

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Attention-deficit/hyperactivity disorder (ADHD) is an illness characterized by inattention, hyperactivity, and impulsivity. The most commonly diagnosed behavior disorder in young persons as well as children.

It is found that ADHD is associated with other disorders also. In fact, symptoms like those of ADHD are often mistaken for or found occurring with other neurological, biological, and behavioral disorders. Nearly half of all children with ADHD (especially boys) tend to also have ***oppositional deficit disorder***, characterized by negative, hostile, strong feeling and defiant, refusal behavior. ***Conduct Disorder***, (marked by aggression towards people and animals, destruction of property, deceitfulness or theft and serious rule-breaking) is found to co-occur in an estimated 40 percent of children with ADHD. Approximately one-fourth of children with ADHD (mostly younger children and boys) also experience ***anxiety*** and ***depression***. And, at least 25 percent of children with ADHD suffer from some type of ***communication/learning disability***. There is additionally a correlation between ***Tourette's syndrome***, a neurobiological disorder characterized by motor and vocal tics, and ADHD- only a small percentage of those with ADHD also have Tourette's, but at least half of those with Tourette's also have ADHD.

Types of symptoms of ADHD:
There are actually three different types of ADHD, each with different symptoms: predominantly inattentive, predominantly hyperactive impulsive and combined type.

Those with the predominantly inattentive type often:
- Fail to pay close attention to details or make careless mistakes in schoolwork, work, or other activities.
- Have difficulty sustaining attention to tasks or leisure activities.
- Do not seem to listen when spoken to directly.
- Do not follow through on instructions and fail to finish schoolwork.
- Have difficulty organizing tasks and activities.
- Avoid, and dislike, engaging in tasks that require sustained mental effort.
- Lose things necessary for tasks or activities.
- Easily distracted by external stimuli.
- Forgetful in daily activities.

Those with the predominantly hyperactive/impulsive type often:
- Fidget with their hands or feet or squirm in their seat.
- Leave their seat in situations in which remaining seated in expected.
- Move excessively or feel restless during situations in which such behavior is inappropriate.
- Have difficulty engaging in leisure activities quietly.
- Are "on the go" or act as if "driven by a motor".
- Talk excessively
- Blurt out answers before questions have been completed.
- Have difficulty awaiting their turn.
- Interrupt or intrude on others.

Those with the combined type, the most common type of ADHD, have a combination of the inattentive and hyperactive/impulsive symptoms.

Causes of ADHD
It is important to realize that ADHD is not caused by **dysfunctional parenting**, and those with **ADHD do not merely lack intelligence or discipline**.

- ADHD is a biologically based disorder. Theories suggest that cigarette, alcohol, and drug use during pregnancy or exposure to environmental toxins such as **lead** (found in Paints & Pencils) may be linked to the development of ADHD.
- Research also suggests a strong genetic basis to ADHD-the disorder tends to run in families. In addition, research has shown that certain forms of genes related to the dopamine neurotransmitter system are linked to increased likelihood of this disorder.
- While early theories suggested that ADHD may be caused by minor head injuries or brain damage resulting from infections or complications at birth. However, research found this hypothesis to lack substantial supportive evidence. But, scientific studies have not verified dietary factors, another widely discussed possible influence for the development of ADHD, as a main cause of the disorder.

Depending on the types of ADHD, a number of researches have been conducted to find out the possible factors causing ADHD. These factors may be found to fall in following these categories.

1. Genetic or hereditary factor
2. Organic or physiological factor
3. Environment factor

1. **Genetic or hereditary factor: -** It has been found and many characteristics commonly found in ADHD children are transmitted from generation to generations. This relationship between inheritance and ADHD has been established on the basis of following results:

a) Nearly 20% to 25% of hyper active or impulsive children have been found to have at least one parent of his nature.
b) Emotional imbalances, disorders of memory and thinking, speech and learning have found to run in families.
c) Going deep into the genetic research, USA scientists and psychologists have attained success in identifying particular genes that may responsible for reading and other problems.

2. **Organic or Sociological factors: -** Study of most of ADHD causes reveals that patients may suffer from mal-functioning or dysfunctioning of Central Nervous System consisting of

brain, spinal cord and message carrying nerves. This dysfunction, however minimal it may be, is caused by factors like below:

a) Brain damage caused by an accident or by lack of oxygen before, during or after birth resulting in neurological difficulties.
b) Damage or injury to spinal cord and message carrying nerves etc. leading to malfunctioning.
c) Dysfunctioning of Central nervous system may be caused by biochemical imbalances generated by factors below:

i. Colouring and flavourings in many food items.
ii. Vitamin deficiency may cause inability of a child's blood stream to synthesis a normal amount of vitamins essential for normal functioning of central Nervous System.

3. **Environmental factors: -** ADHD may be caused by improper and uncongenial condition and factors present in an individuals' physical, social, cultural and educational environment. Some of these factors may be cited as:

i. Poor or inadequate instructions received on accent of their own family set up or lack of motivation, skill and ability on the part of teachers.
ii. Emotional disturbance.
iii. Imitation and company of ADHD children.
iv. Social and cultural deprivation.

Treatment
Many treatments- some with good scientific basis, some without, have been recommended for individuals with ADHD. The most proven treatments are **medication** and **behavioral therapy**.

Medication
Stimulants are the most widely used drugs for treating attention-deficit/hyperactivity disorder. But most recently, the FDA has approved a non-stimulant medication for the treatment of ADHD.

Behavioral Therapy
Treatment strategies such as rewarding positive behavior changes and communicating clear expectations of those with ADHD have also proven effective. Additionally, it is extremely important for family members and teachers or employers to remain patient and understanding.

Children with ADHD can additionally benefit from caregivers paying close attention to their progress, adapting classroom environments to accommodate their needs, and using positive reinforces. Where appropriate, parents should work with the school district to plan an individualized education program (IEP).

Teaching Strategies for ADHD
Successful Teaching for children with ADHD integrate the following three components:

- Academic Instruction;
- Behavioral Instruction; and
- Classroom Accommodations

The first major component of the most effective instruction for children with ADHD is effective academic instruction. But before giving any instruction to the ADHD student teacher should

1. Evaluate the child's individual needs and strengths.
2. Select appropriate instructional practices of the chapter and age of students to gain their attention.

In order to conduct the most productive lessons for children with ADHD, effective teachers periodically question children's understanding of the material, probe for correct answers before calling on other students and identify which students need additional assistance. Teachers should keep in mind that transitions from one lesson or class to another are particularly difficult for students with ADHD. When they are prepared for transitions, these children are more likely to respond and to stay on task. The following set of strategies may assist teachers in counduting effective lessons:

- Be predictable and Support the student's participation in the classroom.
- Check student performance regularly.
- Review previous lessons.
- Set learning expectations.
- Set behavioral expectations.
- Simplify instructions, choices, and scheduling.
- Ask probing questions.
- Help students correct their own mistakes.
- Lower noise level.
- Divide work into smaller units.
- Highlight key points.
- Eliminate or reduce frequency of timed tests.
- Check assignments.
- Preview the next lesson.

Effective teachers of children with ADHD also guide them with follow-up directions and Effective teachers conclude their lessons by providing advance warning that the lesson is about to end, checking the completed assignments of at least some of the students with ADHD, and instructing students how to begin preparing for the next activity.

Effective teachers of students with ADHD also individualize their instructional practices in accordance with different academic subjects and the needs of their students within each area.

They first identify the areas in which each child requires extra assistance and then use special strategies to provide structured opportunities for the child to review and master an academic lesson that was previously presented to the entire class. Strategies that may help facilitate this goal include the following (grouped by subject area).

1. Silent reading time.
2. Follow-along reading.
3. Partner reading activities.
4. Storyboards.
5. Storytelling.
6. Playacting.
7. Word bank.
8. Board and Computer games for reading comprehension.
9. Recorded books.
10. "Backup" materials for home use and of course writing.

Since ADHD Children are poor readers, teachers need patience and a Cool behavior. Their writing ability is also not very good. It is seen that usually they are having very poor handwriting with silly spelling mistakes as their command on languages are not good.

But all effective teacher need is patience, cool name and sweet behavior as these children are not mischievous as or naughty as people assume them. They are having mental ailment which is seen in their behavior only and that is especially during their learning process.

It is estimated that three to five percent of School-Age Children are suffering from ADHD. Government should frame special Education Policies for these children. Merely giving extra time to complete Answersheet during exams (as given by CBSE) is not sufficient.

These children are part and parcel of our society. Let us protect and help them with our effective teaching.