

Management of a Child with Attention Deficit Hyperactivity Disorder

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I don't care what you call it, my child needs help. This plea from a parent, printed at the beginning of the British Psychological Society (BPS) working party report on attention deficit hyperactivity disorder (ADHD) shows the views of many parents. ADHD is the name of group of behaviours found in many children and adults.

Definition

According to DSM-IV R, the essential feature of ADHD is "a persistent pattern of inattention and/or hyperactivity-impulsivity which is more frequent and severe than is typically observed in individuals at a comparable level of development. Symptoms of ADHD must be present before age seven years, and must interfere with developmentally appropriate social, academic, or occupational functioning in a least two settings.

History

ADHD can be traced back as far as the mid 1800s, when Dr Heinrich Hoffman, physician and poet, was unable to find any suitable reading materials for his 3-year-old son in 1845. In the 1930s and 1940s, children with the ADHD-like behaviours were called "brain damaged" or "brain injured" because it was known that brain-damaged individuals showed similar behaviours. In the 1950s and 1960s, the term "Minimal Brain Dysfunction" came into common use. "Hyperactive" or "Hyperkinetic" became the term of choice for characterising these children by the 1960s. At that time, excessive motor activity was considered the central problem evidenced by these children. During the 1980s and early 1990s, the emphasis changed again, favoring neither the attentional or hyperactivity/impulsivity features, but recognising the unique contributions of each.

The Prevalence

Many studies estimate that between two and nine percent of all school-aged children worldwide have ADHD. One study reported that the prevalence of ADHD is around one percent of total general population in India. In a study of ADHD among primary school children the prevalence was found to be 11.32 percent. Prevalence was found to be higher among

the boys (66.7%) as compared to that of girls (33.3%).

Aetiology

The precise cause remains unknown. However, in children with ADHD, the right prefrontal cortex and two basal ganglia called the caudate nucleus and the globus pallidus are significantly smaller than normal in children with ADHD; the vermillion region of the cerebellum is also smaller. The brain areas that are reduced in size in children with ADHD are the ones that regulate attention.

Most researchers now believe that ADHD is a polygenetic disorder - that is, that more than one gene contributes to it. Prenatal / perinatal difficulties and genetics, with there being strong evidence of a hereditary link. Home environment and diet, trauma, foetal exposure to alcohol and tobacco, and early exposure to high levels of lead are also implicated.

Types & Clinical Manifestations

The Diagnostic and Statistical Manual of Mental Disorders states three types of ADHD and lists their symptoms. (1) Combined Type, six or more symptoms listed under the Inattention criteria below, and six or more of the symptoms listed under Hyperactivity-Impulsivity must have been met for a period of at least six months. (2) Predominantly Inattentive Type, six or more symptoms listed under Inattention, but fewer than six symptoms under Hyperactivity-Impulsivity must be met for at least six months. (3) Predominantly Hyperactive-impulsive Type, six or more Symptoms listed in the Hyperactivity-Impulsivity criteria, but fewer than six symptoms listed under Inattention must be met for at least six months. (4) Not Otherwise Specified, in which there are prominent symptoms from the Inattention and/or Hyperactivity-Impulsivity criteria lists, but these are not sufficient to meet ADHD criteria.

Symptoms of Inattention: Does not pay attention to details or makes careless mistakes in school assignments, or other activities; Does not appear to listen when spoken to directly; Does not follow through on instructions and fails to complete school work, chores, or workplace duties; Has problems organising tasks and activities; Avoids, dislikes, or is reluctant to engage in tasks requiring sustained men-

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tal effort; Loses items necessary for tasks or activities; Is easily distracted by extraneous stimuli; and Often forgetful in daily activities.

Symptoms of Hyperactivity: Fidgets with hands or feet or squirms in seat; Leaves seat in class or other areas where individuals are expected to remain seated; Runs and climbs excessively in inappropriate situations; Has difficulty playing quietly in leisure activities; Talks excessively; and is frequently “on the go” or acts as if “driven by a motor.”

Symptoms of Impulsivity: Blurts out an answer before question has been completed; Has difficulty waiting for own turn; Interrupts or intrudes on other’s conversations or games.

Management

The best outcomes are achieved by a multifaceted interdisciplinary approach.

I. Prevention: (a) Providing a proper antenatal, perinatal care, postnatal care and newborn care; (b) Educating the public about good practices of child bearing & rearing or parenting skills.

Nutritional teaching: (a) The role of the nurse will be to supervise the child, to ensure nutritional adequacy of intake and monitor growth; (b) Well Baby clinics & health check-ups.

II. Assessment and Identification: The school health Nurse or primary mental health worker may be the first professional the school would contact (with parental permission) if they were seeking confirmation of ADHD or advice about the effects of medication.

III. Multidisciplinary evaluation: & Coordinating information: Includes the primary paediatrician (and possibly a developmental paediatrician, neurologist / psychiatrist), psychologist, paediatric/school nurse, classroom teacher, specialty teachers as appropriate, and the child’s parents in order to obtain all perspectives of the child’s behaviour.

IV. Conduct a comprehensive evaluation and physical assessment.

V. Use multiple sources of information. It is very important to get information from parents, teachers, and others in the child’s environment to achieve a multi-disciplinary, collaborative approach.

VI. Get information about the child’s functioning in different settings.

VII. Assess all dimensions of ADHD.

VIII. Obtain and review multiple types of data. Traumatic experiences and psychiatric and other disorders are ruled out, including lead poisoning, seizures, partial hearing loss, psychosis, and witnessing sexual

activity and/or violence.

IX. An initial request for assistance to a school health Nurse.

Whether the initial request for assistance originates from the parents or from within the school, some considerations. These include: (1) Assuring the parents that the intent of the process is to determine what difficulty the student is experiencing and the most appropriate manner to provide support to their child; (2) Exploring the parents’ specific concerns and their attempts to help their child; (3) Requesting parental permission to allow the school to collaborate with community-based professionals; (4) Nurse within the school through which the parents may maintain an open channel of communication. She should also see that specific study skills are taught to all students; re-teaching is an integral part of lesson planning. Also the group should be small and instruction specific; there are frequent opportunities for hands-on learning, alternative assessments of student work; environmental/classroom accommodations, listening devices (e.g. noise canceling headphones are provided and behavioral interventions, skill instruction, and modification of consequences.

X. School-based Interventions: There are many strategies that have been found to help students, choosing the “right one” is best accomplished with a problem-solving, practical approach.

XI. Curriculum / Instruction: In the US, 37 percent of those with ADHD do not get a high school diploma even though many of them will receive special education services. The curriculum needs to be differentiated and simplified.

Basic Measures to Help Children with ADHD

1. The child needs to be placed to work alongside those of similar abilities, not only educationally / academically, but maturity levels also.
2. Sufferers generally respond well to the three “R”s, Routine, Regularity and Repetition.
3. The teacher must be firmly in control of the class, whilst being a sympathetic and warm person as such children generally respond well to praise and individual attention.
4. The system may allow children to repeat years if needed.
5. Small class size is beneficial for these children as they offer less distraction, allowing them a better opportunity to build relationships with their peers and the teacher. Sit them at the front of the class or facing a wall.

6. Remedial facilities are an added bonus, not only for those with learning difficulties but also those with ADD/ADHD.
8. A variety of choices is generally beneficial at senior school. Many of these children achieve their best doing manual tasks rather than verbal.
9. They should be better subjected to continuous assessment of coursework, followed by shorter exams.
10. Learn to enjoy these children as they have hidden talent.

XII. Teachers Responsibility: Teachers are often the first to recognise whether a child is hyperactive or inattentive. The child needs an individual learning plan (IEP), based on ongoing assessment.

Classroom teachers that have students that suffer from ADHD will be faced with the following classroom management problems: Being aggressive towards classmates; Talking out of turn; Being oblivious and daydreaming; Losing and forgetting equipment; Producing work that is incomplete or sloppy; Not handing in homework or handing it in late; Bothering classmates, preventing concentration, hindering work efforts; Getting out of seat at inappropriate times and situations; and deviating from what the rest of the class is supposed to be doing.

The Attention Deficit Disorder Association (ADDA) suggests the following for a classroom teacher in dealing with students with ADHD: Allowing children to play; Using peer models that are positive; Preparing for transactions; Allowing students to move; Decreasing potential distractions; Allowing better communication; and maintaining a healthy environment in school College of St Mary (2004).

XIII. Assistive Technology: Computer-based educational software can help children learn academic subjects. The best programmes provide immediate feedback and appealing, changing visual and auditory input.

XIV. Social Skills at School: One of the most important skills taught both at home and school is getting along with others.

XV. Adolescent Issues: For some adolescents, the parent must continue to supervise homework for more years than would the parent of a non-ADHD teen.

XVI. Special Education: A child with ADHD who has a measurable learning disability and meets eligibility criteria may qualify within the learning disability category.

Role of a School Nurse

An open welcoming school nurse office can encourage students with problems to seek assistance. Participation in a school-based, nurse-led support group was positively associated with perception of self-worth in pre-adolescents diagnosed with ADD or ADHD.

Prevention, early identification, and intervention will ensure more successful outcomes for students.

Helping the parents in accepting the diagnosis: The classic stages of mourning, denial, anger, grief and acceptance all apply here.

Emphasising the parents on the need for Community and extended family support: Community support is important during and after the initial diagnosis. Extended family can be a support, but at times a source of tension too.

Confidentiality and disclosure: Many times, it is better to allow friends and their parents to get to know the child before telling them. It is better for the school to know if the child has any special needs.

Advocating for the child's educational needs: The parent should suggest more frequent telephone or face-to-face contact to monitor and coordinate school and home progress.

ADHD Behavioural Strategies for Caregivers at Home and School

Strategies to improve impulsive behaviours: Establish rules and be consistent; Frequently reinforce positive behaviours. Positive verbalisations help to change behaviour. Do not allow the child to interrupt you when talking. The use of wait time can be effective. If the child is argumentative, calmly repeat the original directions until the child stops talking back.

Classroom strategies to improve inattentive behaviours: Give directions slowly and have the child repeat them. Use eye contact. Stand near the child. Proximity is helpful when working to change behaviours. Structure and vary the tasks. Small tasks are favourable. Praise positive behaviour. Move the child's seat to minimise distractions.

Strategies for improving organisational skills: Use a planner or calendar for long-term projects & Label school supplies. Help the child arrange pencils, papers, and notebooks in his or her desk, so that each item has a place. Label school supplies. Use assignment sheets or a homework notebook. Develop a system of rewards for daily improvement. Discuss school issues with the child and involve him or her in the steps toward improvement. Have the child's teacher & parents sign completed assignments.

Tips for Teachers with Students with ADHD: Provide preferential seating in front of the room. Give clear and concise directions. Provide new information in bits. Pair verbal instruction with visual cues. Give praise, even for small events. Encourage students to ask questions. Simplify directions. Implement a positive behavior programme. Provide extra time to complete work. Give frequent feedback.

Tips for Parents with Children with ADHD: Pay attention when your child is doing well. Establish a consistent routine and structure. Provide study space. Keep in close communication with your child's school. Keep a daily homework notebook. Have the teacher sign it. Help your child organise assignments. Give clear directions. Let your child work while standing up. Assign small amounts of work. Praise your child frequently.

Nursing Interventions

Providing patient and classroom teaching geared to the Child's special needs. Rule out hearing, speech and visual problems with appropriate screening methods.

Visual perceptual deficit: Present material verbally, use hands on experience, tape record teaching sessions.

For auditory perceptual deficit: Provide materials in written form, use pictures, provide tactile learning.

For integrative deficit: Use multisensory approaches. Print directions while you verbalize them. Use calendars and lists to organise tasks & activities.

For motor/expressive deficits: Breakdown skills & projects into their multiple component parts. Verbally describes the component parts. Provide extra time to perform. Allow child to type work rather than using cursive writing.

For highly distractible child: Provide a structured environment. Have child sit front of class. Place child away from doors & windows, decrease clutter on desk.

Additional suggestions for the class room teacher: Promote an environment conducive to learning. Utilise resources room and special education teachers. Participate in the development of the individualised education plan. Provide untimed tests. Reinforce that the child may have failed a test / course but that the child is NOT a failure. Help child compensate for deficits. Help child stay focused on task. Provide printed & verbal instructions for tasks. Teach the steps of problem solving & decision making. Help the child pulls new learn-

ing together. Encourage the child to participate actively in learning. Help the child set appropriate goals. Help the child organise & prioritise. Serve as a child advocate. Be supportive and non-judgmental. Serve as a liaison between the school and medical communities.

Providing Emotional Support to the Family

Provide parents with opportunities to express their feelings & concerns about the diagnosis; expect such reactions as guilt, disbelief, relief, anger & frustration; provide factual information about the disorder & the treatment plan; assist the parents to deal with identified problems, & provide them with positive feedback when appropriate; help the parents anticipate & deal with the reactions & needs of siblings, especially when younger siblings surpass the ADHD child or receive better grades; assist the family to find appropriate programs to meet the child's special needs; serve as coordinator of services between family, school, physician, & other agencies; refer to a parent support group if one is available; they can be assured that there is no evidence that the drugs produce any euphoric effect or addiction in children; and provide education to students, staff, and parents about ADHD and current treatments.

Providing a Therapeutic Home Environment

Assist the parents to manipulate the home environment to reduce stimulation & stress. Maintain regular sleeping, eating, working, and playing routines. Provide a minimum of external stimuli & alternatives. Divide tasks & expectations into small, manageable parts. Give only one or two instructions at a time. Set firm but reasonable limits on behaviour and carry through with consistent discipline. Avoid situations that cause excessive excitement, stimulation, or fatigue.

Evaluate the environment for safety hazards and eliminate them. Provide for energy release: Plan for periods of physical activity, vocal outlet, and outdoor play. Channel need for movement into safe, appropriate activities. Involve the child in social activities. Build self-esteem; recognise strengths and willingness to try.

Nursing Care Plan

Nursing Assessment: Includes standard history and physical examination, neurologic examination, family assessment, and school assessment.

Signs and symptoms: The core symptoms include inattention, hyperactivity, and impulsivity. Children may experience significant functional problems such as school difficulties, academic underachievement,

troublesome interpersonal relationships with family members and peers, and low self-esteem.

Nursing Diagnosis: Disturbed thought processes related to inability to concentrate, control impulses, and organise thoughts in a manner appropriate for age and development

Desired Outcomes: Within one month of this diagnosis, child completes activities of daily living (ADL) and shows behavioural improvement in the school setting. Within one semester, child shows improvement in academic activities.

Interventions: (a) Encourage parents/teachers to provide a structured environment and consistency; (b) Promote ongoing communication between parents and teachers. (c) Encourage parents/teachers to decrease stimuli when concentration is important.

Nursing Diagnosis: Chronic low self-esteem related to negative responses from others about behaviour.

Desired Outcome: Within one month of this diagnosis, the child achieves at least one goal, lists strengths, and elicits fewer negative responses from others.

Interventions: Monitor the child's interactions with others. Reward positive behaviour and provide limit setting as needed. Avoid negative comments and giving attention for negative behaviour. Help the child set goals that are age appropriate, realistic, and achievable. Set timetable to achieve step-by-step progress until he or she accomplishes overall goal. Encourage the child to make a list of his or her strengths. Teach self-questioning techniques (e.g., What am I doing? How is that going to affect others?). Encourage positive self-talk (e.g., I did a good job with that!). Provide feedback accordingly. **Nursing Diagnosis:** High risk for injury related to increased activity level, limited judgment skills, and impulsivity.

Desired Outcome: Child remains free from signs of injury.

Interventions: Reinforce to parents the importance of the child using appropriate safety equipment/protective device (e.g., seat belt, bicycle helmet). Encourage parents to model the use of appropriate safety equipment protective devices. Encourage parents to set clear limits on where the child may ride a bike or play and to offer choices from several safe areas child can go. Encourage child's participation in active play rather than in passive activities. Reinforce importance of parents monitoring child's activities frequently. Teach parents to reinforce positive behaviour with feedback and intermittent rewards.

Evaluation of the ADHD child

Parents must be notified in writing and written consent obtained prior to evaluating the student. The student's multidisciplinary assessment team should evaluate the student and obtain data documenting the student's school performance.

Conclusion

The children with ADHD have a real disability. Just as we provide eyeglasses to a person with a deficit vision or allow a child in a wheelchair extra time to get to class, we need to provide appropriate behaviour programmes, curriculum adaptations and reasonable accommodations to children with ADHD for success in school. Ultimately the most important thing is to instill in the child a positive self-esteem and an attitude of responsibility and mastery.

References

1. College of Saint Mary. The Missing Piece: Behavior Management Strategies [document on the internet] [updated 2004 may 24]. Available from: <http://csmstu01.csm.edu/students/eboston/papers.htm#schoolnurse>.
2. ConnecticutADHD Task force. State Department of Education. Bureau of Special Education & services.2005. [document on the internet]. 2nd edn.
3. Verwey RN. Health Management for School Series. Attention-Deficit/Hyperactivity Disorder; 2005 Feb 8. Available from: <http://faculty.nwacc.edu/sverwey/ADHD.htm>
4. Jyothsna AV, Panicker AS. Prevalence of attention deficit hyperactivity disorder in primary school children. *Indian J Med Res* 2008; June
5. Sarah-Jayne Bass. How Schools Can Help; 2009, Feb 21 Available from: www.adders.org.
6. Frame Kathleen. Empowering preadolescents with ADHD: Demons or delights. *Advances in Nursing Science* 2003; June 26(2): 131-39
7. Partners in Pediatrics. ADHD: What you need to know. Healthcare for children & adolescents. ADHD Behavioral strategies. Available from: www.pipstop.com. p:1-4
8. Frame Kathleen, Kelly Lynn, Bayley Elizabeth. Increasing perceptions of self-worth in preadolescents diagnosed with ADHD [Clinical Scholarship]. *Journal of Nursing Scholarship* [abstract] 2003 [cited 2009 Feb 22]; 35(3): 225-9 Available from: <http://pt/re/jnsc/pdf/handler>
9. ADHD info.com. 'Your role in Medication' 2009. Novartis Pharmaceuticals Corporation.
10. Suddarth DS. The Lippincott Manual of Nursing Practice: 5th edn, Philadelphia; JB Lippincott Company; 1991. p1151-57
11. Townsend MC. Psychiatric Mental Health Nursing. Concepts of Care in Evidence-Based Practice; 5th edn. New Delhi; Jaypee Brothers; 2007; p 363-68
12. Townsend MC. Nursing Diagnosis in Psychiatric Nursing Careplans & Psychotropic Medications: 7th edn, Philadelphia; FA Davis Company; 2008; p 23-24
13. Madhubala J, Bhaskara Rao D. Methods Of Teaching Exceptional Children. New Delhi: Discovery Publishing House; 2004.
14. Aggarwal JC. Psychology of Learning & Development, Development of Teaching-Learning Process. New Delhi: Shipra publications; 2004.
15. Krishna VV, Bhaskara Rao D. School Psychology. New Delhi: Discovery Publishing House; 2004
16. Skinner EC, Editor. Educational Psychology. New Delhi: Prentice Hall of India; 1996
17. Swearingen PL. All-in-one Care planning resource: 2nd edn, USA; Elsevier; 2004, p 585-92