



L V Prasad Eye Institute
L V Prasad Marg, Banjara Hills
Hyderabad, INDIA



World Health Organization

Collaborating Centre for
Prevention of Blindness

**Meera & L B Deshpande
Centre for Sight Enhancement**

&

**Dr P R K Prasad Centre
for Rehabilitation of
Blind and Visually Impaired**

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Management of children with vision loss and additional disabilities

The National Sample Survey Organization (1991) estimates that 12.3% of the people in India with disabilities have multiple handicaps. About 60% of all babies born blind have at least one or another associated problem. Blindness is one of the most devastating disabilities, especially when it affects infants, toddlers, preschoolers and their families. The absence of vision interferes with all other normal developmental processes. As a result generally almost all aspects of growth are delayed: acquiring language, motor and interpersonal skills, abstract thinking and the ability to care for themselves.

Common disabilities associated with vision loss

1. **Developmental delay:** Developmental delays are the absence of age specific developmental behaviors in one or more of the developmental areas such as cognitive, motor, visual, speech, language, social and emotional development.
2. **Autism:** This is a biological developmental disorder of the brain that impairs communication and the ability to relate to others. The range of severity is very wide; hence, it is often referred to as Autistic Spectrum Disorder (ASD).

The presence of autism is normally confirmed when a child exhibits seven or more of the listed behaviors and if the behavior is constant and age inappropriate. These behaviors include: (1) Resistance to normal teaching methods, (2) inappropriate laughing and giggling, (3) lack of speech or impaired speech, (4) behaving as if deaf, (5) no fear or recognition of real dangers, (6) apparent insensitivity to pain, (7) echolalia, (8) spinning objects, (9) not fond of cuddling, (10) persistent odd playing patterns, (11) erratic fine/gross motor skills, (12) inability to kick a ball but capable of stacking blocks, (13) no eye contact, (14) reserved manner, (15) difficulty in mixing with other children, (16) resistance to change in routine, (17) inappropriate attachment to objects, (18) marked physical over activity or extreme passivity and (19) crying tantrums (extreme distress for no discernible reason).



3. Attention deficit-hyperactivity disorder (ADHD): This is a neurobehavioral disorder that interferes with a person's ability to stay with a task and exercise age-appropriate inhibition. The warning signs of ADHD include: (1) failure to listen to instructions, (2) inability to organize oneself and school work, (3) fidgeting with hands and feet, (4) talking too much, (5) leaving projects, chores and homework unfinished, and (6) having trouble paying attention to and responding to details.

4. Learning disability: A learning disability is a disorder in one or more of the basic psychological processes involved in understanding and using language (spoken or written), ability to listen, think, speak, read, spell or do mathematical calculations. These can be of several types such as:

a) Dyslexia (Reading disability): A reading disability affects any part of the reading process, including difficulty with accurate and/or fluent word recognition, word decoding, reading rate, prosody (oral reading with expression), and reading comprehension.

b) Dysgraphia (Writing disability): A writing disability includes impairments in handwriting, spelling, organization of ideas, and composition.

c) Dyscalculia (Maths disability): This includes difficulties in learning math concepts (quantity, place, value, and time), difficulty in memorizing maths facts, difficulty with organizing numbers and problems organized on the page.

d) Dyspraxia: This refers to a variety of difficulties with motor skills. It can cause difficulty with single step tasks like combing hair or multi-step tasks like getting dressed.

5. Hearing impairment: Hearing impairment is a generic term including both the deaf and the hard of hearing. The term refers to persons with any type or degree of hearing loss that causes problems in normal behavior. It can affect the whole range or only part of the auditory spectrum which, for speech perception, the important region is between 250 and 4,000 Hz. The term 'deaf' is used to describe people with profound hearing loss such that they cannot benefit from amplification, while hard of hearing is used for those with mild to severe hearing loss but who can benefit from amplification.

6. Mental retardation: This disability is characterized by significant limitations both in intellectual functioning and in adaptive behavior as expressed in conceptual, social, and practical adaptive skills. The disability originates before the age of 18. (AAMR 2002)

Common problems in children with multiple disabilities

Children who have multiple disabilities have one or more of these common problems:

1. Lack of functional independence: Inability to manage age appropriate self-care skills (eating and dressing). Inability to move about and difficulty in coordinating large and small motor skills.

2. Behavioral Problems: Indulging in ritualistic behavior (rocking back and forth, waving fingers in front of the face), self-stimulatory behavior (grinding the teeth, patting the body), and self-injurious behavior (banging the head, pulling the hair).

3. Impaired intellectual skills: Difficulty in higher mental level functions such as thinking, reasoning, problem solving, and memory.

4. Communication problems: Difficulty in speech and language, receptive and expressive communication.



Management of children with additional disabilities

Effective management procedures involve three key steps:

1. Assessment: It is important to understand the child's current level of behavior and development and plan intervention strategies in meaningful ways. The level of abilities could be assessed using all or some of the information such as: (1)

current level of functioning against normal developmental milestones, (2) observation of behavior and responses for activities, (3) information provided by the parents, family members and caregivers, and (4) available case reports from other health care and medical professionals.

Training: The effectiveness of the management is based on the intensity of the training provided to the child. Children with developmental delays and those with multiple handicaps usually have problems in more than one functional area. Hence they need the services of a multidisciplinary team that includes:

- a. **Special educators:** These are trained professionals who provide specifically designed instruction material and services to children with multiple disabilities. They adapt and develop material to match the needs of each student and use a variety of teaching strategies to ensure that children with disabilities also reach their full learning potential.
- b. **Occupational therapist:** A therapist who evaluates the fine motor and eye-hand coordination skills of a person, assists in improving the hand strength and helping arms and hands to develop maximum function, restoration of the person's ability to perform daily living activities (eating, dressing, bathing) and necessary occupational tasks.
- c. **Orientation and Mobility Instructors:** Orientation and mobility instructors offer techniques and training on the use of the

remaining senses including residual eyesight to move about safely and confidently.

- d. **Rehabilitation Counselors:** These are skilled professionals who help disabled individuals by providing individual, family and group counseling by listening and developing awareness.



- e. **Physiotherapists:** Physiotherapists assess the physical condition of patients for diagnosing problems and planning appropriate treatment strategies, using a range of techniques to strengthen and stretch muscles and joints damaged by injury or diseases for improving movement.
- f. **Psychologists:** They provide scientific assessment, prevention and intervention measures to enhance the mental and emotional functioning and well-being of an individual.

Enrol now!

Short-term Fellowship Programs in Low Vision care

Duration: 3 months

Program begins on: July 1, & October 1.

Minimum qualification: Diploma in optometry or Master's degree in ophthalmology – preferably institution-based

Registration is limited to two candidates per program.

Registration fee: Indian Rupees 30,000

Low Vision Awareness Program

Duration: 3 days

Program dates: September 28-30, 2007

Eligibility: Ophthalmologists, optometrists and rehabilitation professionals

Registration fee: Indian Rupees 2500

CME Programs

Low vision awareness program for ophthalmologists, optometrists and rehabilitation professionals

The 17th Low Vision Awareness Program was successfully conducted from April 27-29, 2007. Forty-eight eye care professionals from all over the country participated in the program.

3-month short-term fellowship program

Dr. Purushottam Dhungana, Tilganga Eye Centre, Nepal has joined the three months short-term fellowship program in low vision care from April 1 – June 30, 2007.

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- g. **Social workers:** They help with a particular crisis and/or day-to-day problems with family, school, work, financial concerns, and government programs.
 - h. **Speech therapist:** A specialist who evaluates and treats communication disorders and eating/swallowing problems.
2. **Follow-up:** Periodical follow-up of a patient is essential for evaluating progress in the developmental areas. A thorough evaluation is helpful in reassessing and redefining the program structure for effective intervention. Assessment

at periodical time intervals and consultation with multi-disciplinary team members enables parents and caregivers to receive timely guidance for setting new goals.

The birth of a differently abled child creates a crisis situation, caused by an unanticipated, traumatic event beyond the parents' control. The implications of disability heighten stress levels, both physical and emotional, for the parents and family members. Hence, timely rehabilitation management would reduce the dependency level of the child and enhance the quality of life of the child as well as that of family members.

Suggested websites for further reading....

Autism: www.autism.org, www.autism.com, www.autism-india.org, www.kidshealth.org

Mental Retardation: www.aamr.org, www.kidshealth.org, www.norfolkcsb.org

Developmental delay: www.devdelay.org, www.babycentre.in

Learning disability: www.ldonline.org, www.childdevelopmentinfo.com

ADHD: www.adhd.com, www.nimh.nih.gov, www.adhdsupport.com

Hearing Impairment: www.kidshealth.org, www.teachersfirst.com

Low Vision Awareness Programs (LAP) for 2007 September 28-30, 2007

You can make a difference

Your contribution can help the Vision Rehabilitation Centres in several ways: provision of low vision devices to underprivileged children, training optometrists in detection and rehabilitation of the blind and those with incurable low vision, and conducting community programs for rehabilitation of persons with visual impairment.

Contributions to the Hyderabad Eye Institute and Hyderabad Eye Research Foundation are tax deductible. Donations above Rs 250 are exempt under Section 80G of the Income Tax Act 1961 for Hyderabad Eye Institute and under section 35(i) (ii) for Hyderabad Eye Research Foundation.

For more information please contact

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Greeting cards based on paintings by children with visual impairment are available for sale. Please contact Vision Rehabilitation Centres, LVPEI.