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Journal of Community Eye Health

Aim

To promote eye health worldwide.

Objectives

- To facilitate continuing education for all levels of health workers, particularly in developing countries.
- To provide a forum for the exchange of ideas, experience and information in order to encourage improvements in the delivery of eye care.

The Indian Supplement will be the official publication of the "Vision 2020: The Right to Sight - Indian Forum" and will provide a forum for the sharing of ideas and experiences related to community eye health activities in the country, focusing on the problems and issues of eye health in underprivileged communities.

Setting up Low Vision Care Services in the Developing World

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Introduction

When a patient cannot be treated by routine vision management practices, doctors have a tendency to give up, saying (and thinking) that they have reached the end of the road in eye care. However, the eye care fraternity can indeed make a difference if orientation, training and enabling services can be set up.

Children and adults are considered to have low vision when, due to disease, hereditary conditions, or trauma, they experience severe visual impairment that either reduces or restricts their ability to use vision to carry out everyday functions, with a negative impact on their quality of life, (e.g., employment, independent living, orientation, experiences, education).

A recent population-based study has shown the prevalence of low vision to be 1.05%

in India.¹

Surveys in schools for the blind in India have shown that 50% of children enrolled have low vision and are not blind.² Reports indicate that only 3% of all blind and visually impaired children in developing countries have access to basic low vision care.³ Low vision care of children with visual impairment early in the life could potentially minimise long-term permanent visual disability and reduce the number of blind years.

Low vision care is recognized as a priority in "VISION 2020: The Right to Sight" programs.⁴

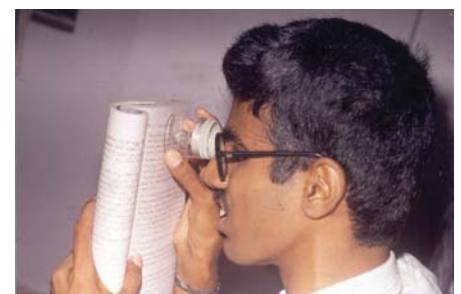
The major constraints in the delivery of low-vision care in the developing world are:

- Lack of emphasis on low vision in existing eye care programs.
- Lack of awareness among eye care professionals and community.
- Non-availability of good quality, low vision training programs.
- Non-availability of low cost, good quality, low vision devices.

- Socio-economic condition precluding use of advised low vision devices.

Comprehensive Low Vision Care

Despite the diversity of settings and differences among them, there are certain elements that are essential to successful delivery of a low vision service. These are: trained personnel, material, infrastructure, integration of low vision care, and evaluation.



Trained Personnel

Comprehensive low vision services can rarely be offered by a single service provider. It is more often a team approach and needs skills of appropriately trained

ophthalmologists, optometrists, ophthalmic nurses and rehabilitation workers. Briefly, low vision evaluation includes history, refraction, functional vision assessment, prescription of devices, appropriate and timely follow-up; and making appropriate referrals to other services if required.

The relevant rehabilitation services include instructions in device use, training in activities of daily tasks, orientation & mobility, patient education, counseling, and educational and vocational guidance.

Material

a. Basic Diagnostic Equipment

1. Refraction instrumentation
2. Acuity charts for distance and near
3. Continuous text reading cards with graduated print size
4. Functional tests: Contrast sensitivity test, Amsler grid, Ishihara test chart and Titmus fly test

b. Optical Devices

1. High powered spectacle devices
2. Hand & stand magnifiers
3. Distance vision telescopes

c. Non-optical Devices

1. Felt-tipped pen
2. Typoscope
3. Overhead reading lamp
4. Reading stand
5. Absorptive lenses (grey, brown & yellow tints)
6. Adaptive & assistive device (closed circuit television & computer magnification software)

Infrastructure

There should be sufficient space and equipment to support:

- Waiting room
- Low Vision Examination room for functional tests
- Instructional & training room for training in use of devices
- Counseling room for patient education

Integration of Low Vision Care

Low vision care could be offered in a variety of settings, including: hospital clinics, private practices, vision rehabilitation organizations and teaching

institutions. Each setting has its own unique characteristics and constraints.



Evaluation

There should be an effective quantitative and qualitative evaluation mechanism that measures consumer satisfaction, outcome measures and cost-effectiveness of the services provided to the clients.

Strategies for service delivery

a. Awareness: There is a need to increase awareness of low vision services among eye care professionals, other health care providers and the community (parents and teachers) through mass education using web-based information, media, brochures or flyers, publication of periodic newsletters and organizing events around World Sight Day. Those who have no access to the media can be reached through appropriate traditional methods.

b. Accessibility: Low vision care should not be exclusively determined by clinical parameters such as visual acuity but should take into account social, emotional, psychological educational and occupational effects. It is important to sensitise eye care professionals to the referral criteria for low vision services.⁵

c. Epidemiology: Planning for low vision services is hindered by paucity of population-based data about low vision and its magnitude.

d. Human Resources: The multi-disciplinary team needed could be broadly categorised as institutional based and community based. The institutional based core group includes an ophthalmologist, optometrist, orthoptist, and rehabilitation specialist (multi-skilled worker). The community-based personnel included primary health care and eye care field workers, community based rehabilitation workers and teachers.

e. Training: Lack of technical expertise or training support services has also hindered provision of low vision care. This can be addressed by appropriate short-term reorientation and continuous medical education programmes and a longterm fellowship programme at the institutional level. Low vision must be made a part of the regular curriculum in ophthalmology and optometry training programs.

f. Low Vision Devices: Attempts have been made to make available simple optical devices at an affordable cost.⁶ These low vision devices should have an acceptable appearance and be comfortable to use. The production, distribution and marketing strategies will depend on creating awareness, demand for services and developing accessibility.

Conclusion

Making low vision care accessible to those in need could make an enormous difference in their quality of life. Eye care professionals must educate themselves about the benefits of low vision care so that they may evolve appropriate strategies to address the problem in ways that are relevant to the developing world, based on the available resources.

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Orientation and mobility training for adults with low vision.

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BACKGROUND: Orientation and mobility (O&M) training is provided to people who are visually impaired to help them maintain travel independence, teaching them new orientation and mobility skills to compensate for reduced visual information.

OBJECTIVES: The objective of this review was to assess the effects of orientation and mobility training, with or without associated devices, for adults with low vision.

SEARCH STRATEGY: We searched the Cochrane Central Register of Controlled Trials - CENTRAL (which contains the Cochrane Eyes and Vision Group trials register) (Issue 3 2002), MEDLINE (1966 to August 2002), EMBASE (1980 to September 2002) and LILACS (September 2002) and the reference lists of articles.

SELECTION CRITERIA: We planned to include randomized or quasi-randomized trials comparing orientation and mobility training with no training in adults with low vision.

DATA COLLECTION AND ANALYSIS: Two reviewers independently assessed the search results for eligibility. **MAIN RESULTS:** No studies were found that satisfied the inclusion criteria. **REVIEWER'S CONCLUSIONS:** We could not find any controlled trials on the effects of orientation and mobility training for adults with low vision. As a premise to future trials, orientation and mobility instructors and scientists should reach a consensus and develop valid measures of mobility performance that are both reliable and meaningful to people with low vision.

2: Br J Ophthalmol. 2003 Aug; 87(8): 941-5.

Causes and temporal trends of blindness and severe visual impairment in children in schools for the blind in North India.

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AIMS: To describe the causes of severe visual impairment and blindness (SVI/BL) in children in schools for the blind in north India, and explore temporal trends in the major causes.

METHODS: A total of 703 children were examined in 13 blind schools in Delhi. A modified WHO/PBL eye examination record for children with blindness and low vision which included sections on visual

acuity, additional non-ocular disabilities, onset of visual loss, the most affected anatomical part of the eye concerning visual impairment, and the aetiological category of the child's disorder based on the timing of insult leading to visual loss was administered in all children.

RESULTS: With best correction, 22 (3.1%) were severely visually impaired (visual acuity in the better eye of <6/60) and 628 (89.3%) children were blind (visual acuity in the better eye of <3/60).

Anatomical sites of SVI/BL were whole globe in 27.4% children, cornea 21.7%, retina 15.1%, and lens 10.9%. The underlying cause of visual loss was undetermined in 56.5% children (mainly abnormality since birth 42.3% and cataract 8.3%), childhood disorders were responsible in 28.0% (mainly vitamin A deficiency/measles 20.5%), and hereditary factors were identified in 13.4%.

Study of temporal trends of SVI/BL by comparing causes in children in three different age groups-5-8 years, 9-12 years, and 13-16 years-suggests that retinal disorders have become more important while childhood onset disorders (particularly vitamin A deficiency) have declined. **CONCLUSIONS:** Almost half of the children suffered from potentially preventable and/or treatable conditions, with vitamin A deficiency/measles and cataract the leading causes. Retinal disorders seem to be increasing in importance while childhood disorders have declined over a period of 10 years.

Vision 2020 : The Right to Sight - India Forum

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Chief Executive Officer, Vision 2020:
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Right to Sight India Forum

The advent of VISION 2020: The Right to Sight brought into focus a long felt need - to bring together the national and International NGOs working for eye care in India. The purpose of bringing them together is for better coordination, sharing of information/resources and effective collaboration to achieve the goals of

VISION 2020. This initiative was discussed in a four-day workshop held in Hyderabad from 27 - 30 January 2003. This workshop was attended by representatives from the international non-governmental organisations, the World Health Organization, the Indian Government, WHO Collaborating Centers and a few individual NGOs nominated by their supporting agencies.

Participants resolved to take the idea of collaboration forward by establishing a formal organisation, the "VISION 2020: The Right to Sight" India Forum. In order to take this forward a steering committee

was formed with a mandate to set up the organisation structure, membership guidelines, rules and regulations, and to incorporate it under an appropriate act in India. Suggestions for immediate activities included mapping eye care resources, developing a framework for resource management, and monitoring eye care activities.

The steering committee has had 3 meetings so far. The members include Mrs. Alice Crasto - Sight Savers International, John Tressler - Christoffel Blindenmission, Dr. G.V.Rao - Orbis, Dr C.S. Shetty - Lions International, Dr. G.N. Rao - LVPEI,

Mr. R.D. Thulasiraj - Aravind Eye Hospitals, Dr. H.K. Tiwari - R P Centre, Dr. Bachani - Ministry of Health, and Dr. M. Upadhyay - WHO.

Planned activities of the VISION2020 India Forum:

1. Advocacy

- VISION2020 state launches with clear commitments including an action plan and budget

- Encouraging active Government/ NGO involvement in World Sight Day celebrations at the state/central level

2. Mapping

- Facilitating information sharing among the INGO community
- Initiating comprehensive national mapping

3. Development of a framework for monitoring
4. Alignment of eye care programs to VISION2020 objectives
5. Developing new programme initiatives
6. Creating a framework for resource management.

The following organisations are founder-members of the Forum

1. CBM International
2. Sight Savers International
3. Orbis International
4. Fred Hollows Foundation
5. Operation Eyesight Universal
6. Seva Foundation
7. Lions Cub International (LCIF)
8. International Centre for Eyecare Education (ICEE)
9. Aravind Eye Care System
10. L.V. Prasad Eye Institute

The following organisations are also being requested to become founder members:

1. Dr. R. P. Centre, Delhi
2. Helpage India, Delhi
3. International Eye Foundation, USA.

The Forum is in the process of being registered as a Society in Madurai, Tamil Nadu, where the office will be located initially.

Tools to plan for more effective eye care programmes

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Blindness is a global public health problem with approximately 45 million people blind and another 135 million people visually impaired, worldwide. The large number of patients requiring care suggests that a well run eye care programme can

generate enough revenue to sustain itself, provided patients can be brought into the system and services are of high enough quality to attract patients. Developing a sustainable programme, however, requires a lot of planning to balance investment and yield for optimal results. Workload estimations are needed to plan for human resources and infrastructure requirements. The potential market for services needs to be estimated to determine the reach of the programme, and to plan for strategies to better tap the unmet need. Such planning will provide eye care programmes with a structured but flexible approach towards building sustainability.

We are currently developing tools for the following

1. To estimate the market potential or the unmet need for cataract and refractive services

2. A tool to guide through decision making or an investment analysis for acquiring ophthalmic equipment.
3. A tool for strategic planning for an existing eye hospital including planning for manpower requirements and cost recovery
4. A tool for establishing effective eye hospitals

We encourage readers to access and evaluate these tools and provide us with feedback to further improve them. The tools and manual can be accessed at <http://www.aravind.org/tools/index.htm>

We wish to acknowledge support from International Eye Foundation, USA towards development of these tools.

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