

Establishment of Low Vision Rehabilitation Centres-The Need of the Hour

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Abstract:

Background and Objective: Information is lacking on the impact of visual impairment on quality of life of visually disabled persons. This study is undertaken to identify the magnitude of visual impairment among certified visually disabled individuals in Nellore district of Andhra Pradesh, India. This study stresses the need for establishment of low vision rehabilitation centres in order to improve the quality of life of visually disabled persons and to give them an economically productive life.

Settings and Design: Retrospective chart review of visual disability awarded in a teaching hospital.

Materials and Methods: Records of patients who obtained visually handicapped certificates were identified. Data was retrieved and analysed in terms of age, gender, degree of visual impairment. Data handled in accordance with the Helsinki Declaration.

Results: 8659 patients were registered for visually handicapped certificates in the Government General hospital, Nellore over a period of 5 years. 2568(29.6%) individuals had 100% disability. The number of males was significantly higher than that of females. 4046 (47%) individuals were between 21-50 years of age.

Conclusions: The responsibility of the government does not end just by providing visually handicapped certificates and travel benefits to the visually disabled persons. It is necessary to provide community rehabilitation of visually disabled persons in order to improve their quality of life as well as avoiding economic burden on the society and country.

Keywords: visual impairment, blindness, magnitude, rehabilitation

I. Introduction

There has been an evolutionary process in changing attitudes regarding the disabled and blindness around the globe. About 1,000 years back the attitude was of disregard, rejection, isolation, and abuse. However, 100 years back the attitude changed to pity and benevolence. Currently, there is a positive attitude towards the disabled including the blind.¹ This becomes more important considering the fact that the country incurs a huge expenditure directly in supporting and indirectly through losing the economic productivity of the disabled.

The rehabilitation of people with visual impairment has been relatively ignored in India.² Reasons given to explain this apparent lack of interest include (i) the overwhelming demand for cataract surgery, (ii) the lack of postgraduate training in the field of low vision rehabilitation, (iii) the perception that low vision rehabilitation is time consuming and generally unsuccessful, (iv) the very poor availability of locally made low vision aids, and (v) the difficulty and expense in importing overseas low vision aids.³ Yet visual rehabilitation clinics exist, and are successful, in other developing country settings such as Kenya and Uganda.⁴ Workers in the field have called for improvement of vision rehabilitation services in India for many years.^{2,3}

Yet, to justify the creation of low vision rehabilitation services it is first required to show a need. To assess this need, a retrospective survey of patient files was done in a large volume eye hospital in India.

II. Materials And Methods:

Patients who obtained visual disability certificates during 1st January 2010 to 31st December 2015 were retrospectively analyzed.

Data was analysed in terms of age, gender, percentage of visual disability. Data was entered into a database and analysed through MS Excel worksheet. To protect anonymity, the names of patients were not noted; we identified them by serial numbers. Data was handled in accordance with the ethical standards of the Helsinki Declaration of 1975, as revised in 2013.

III. Results

Records of 8659 patients were viewed retrospectively.

Figure 1 shows age wise distribution of the study population. It is evident that majority fall in the economically productive age group of 31 to 60 years(54%). Of them,5014(58%)were males and 3645(42%)were females.Male to female ratio was 1.37: 1 [Fig 2]. The difference in gender distribution was significant (P = 0.0419).

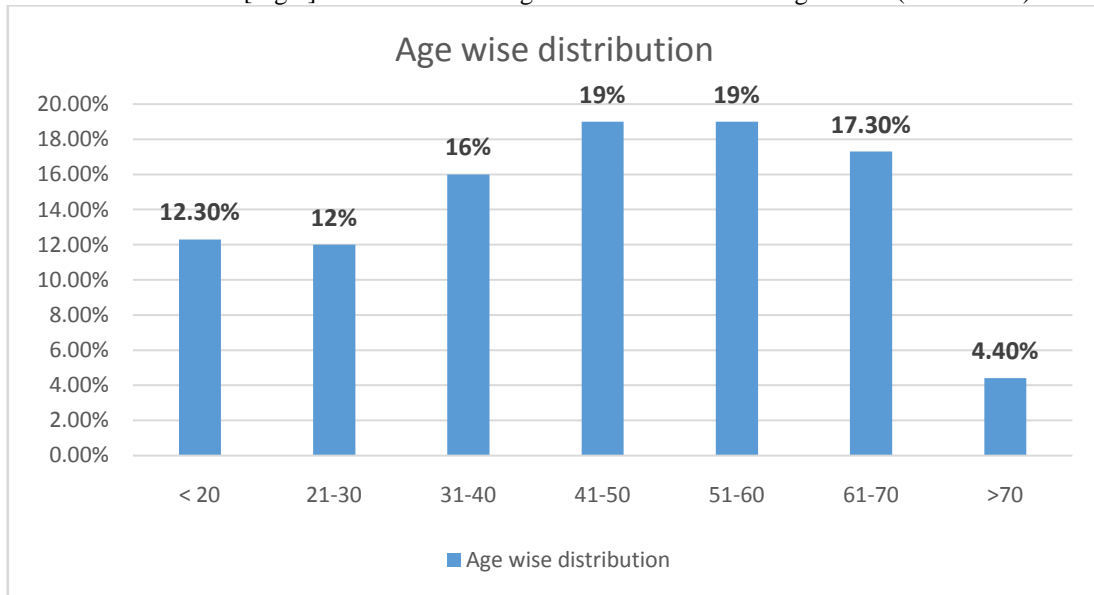


Figure 1: Age wise distribution of the study group

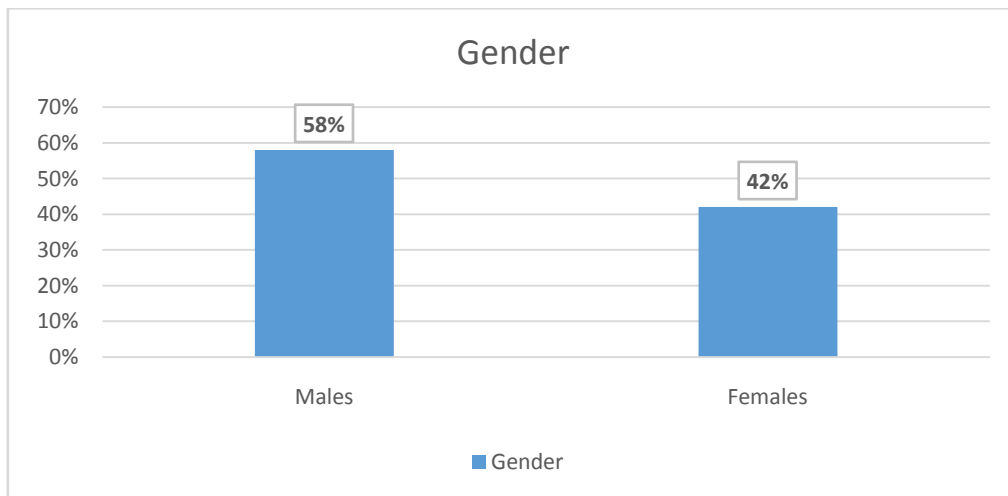


Figure 2: Gender wise distribution of the study group

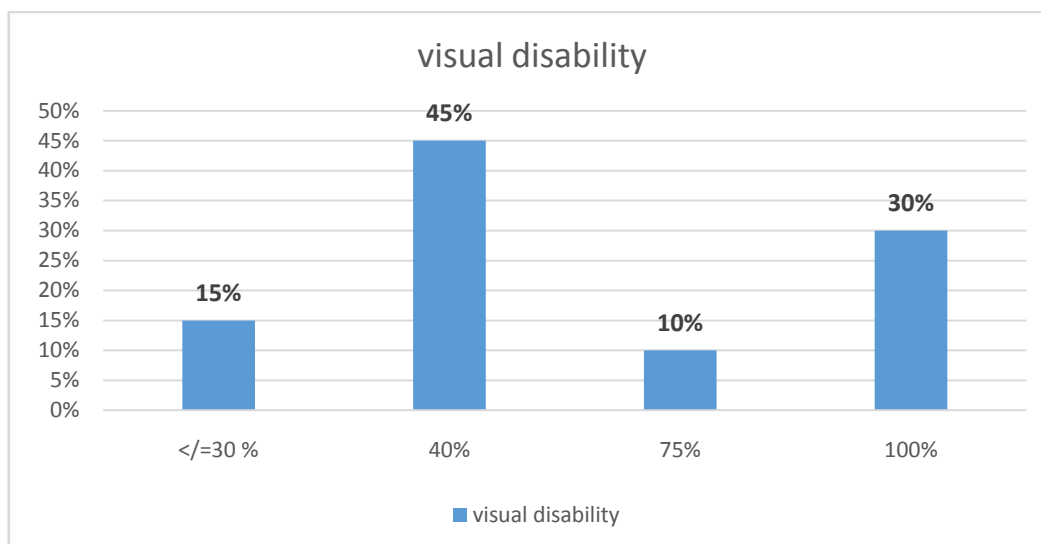


Figure 3: Percentage of visual disability among certified individuals

Figure 3 shows the percentage of visual disability among the certified individuals.

IV. Discussion

Visual impairment in general affects four main functional areas. Orientation/Mobility, communication, activities of daily living, sustained near vision tasks. Early intervention and special education can balance the negative effects of visual impairment.⁵

Low-vision rehabilitation is beneficial for patients with uncorrectable vision impairment, specifically in tasks such as reading and activities of daily living. However, referral to and use of these services remain less than optimal.⁶ Evidence based information is important to plan low vision care and rehabilitation services. Indeed without access to low-vision rehabilitation intervention, people with a visual impairment experience an increase in self-reported visual disability.^{7,8}

Obtaining a visual handicap certificate is a part of rehabilitation of a blind person. It helps a visually disabled person to get pension, travel and income tax benefit. The concept of providing rehabilitation to the visually disabled persons becomes complete only when they are provided low vision rehabilitation and also shown the way to lead an economically productive life. This minimises the burden on the society and in turn the country and at the same time provides a livelihood for the individual.

With increase in consideration of quality parameters in all spheres of life including availability, access, and provision of comprehensive services to the disabled, it is pertinent to have a look on the contribution of government in providing for the same.

In our present study, 2225 patients (24.3%) patients were registered in the age group <30 years, which correspond to the years that people seek benefits in the education.

In our study, 5014 patients (58%) were males and 3645 (42%) patients were females. Gender difference was found to be statistically significant. This could be attributed to the increased outdoor activities of males, or males may have more need of certification. These results are comparable to those of Joshi et al.¹

The data of this survey show that a significant number 5118 (59.3%) of patients fall in the age group of less than 50 years.

What can be done to improve the quality of life of these people? Thorough evaluation of visually disabled person which includes.

- Assessment of a patient's understanding of their ocular condition and prognosis.
- Discussion of needs and initial goal setting.
- Assessment of vision.
- Provision of LVAs, on loan and free of charge.
- Advice about lighting and other methods of enhancing vision.
- Provision of information about the ocular condition and other rehabilitative services.
- Referral to additional services.
- Arrangement for follow-up if a clinical need is identified.
- Providing jobs as per their requirement and percentage of visual disability.

Low Vision Rehabilitation:

Low vision rehabilitation is a multidisciplinary approach combining the skills of optometrists, mobility instructors, and school teachers. In this approach a person with a visual impairment is first seen by an optometrist who determines if magnification would improve the patient's ability to perform a desired task. Magnification is usually provided by optical methods; for example, by spectacles, magnifiers, or telescopes.

Other factors assessed by the optometrist during the low vision examination include contrast and glare sensitivity, visual field integrity, general mobility, and the degree of motivation towards rehabilitation. If magnification is indicated, the optometrist trains the person in how to use the magnifier.

Often the patient may require living skills training which includes instruction in how to dress, how to work in a kitchen and how to take the correct medicines from a bottle. This training is either provided by a mobility instructor or a specialist living skills instructor. Many cases of peripheral field loss could benefit from mobility and living skills training.

If the person is young and still attending school, the optometrist and mobility instructor should consult with the students teachers to help maximize school performance. Topics to be discussed include print sizes to be used at school, contrast enhancement on chalkboards and glare protection. Mainstreaming of visually impaired students in ordinary classrooms is recommended.

Special Assistive Devices For The Visually Impaired:

Assistive devices for the visually impaired can be broadly divided into the following categories: Education, mobility, vocational, daily living devices, low vision devices, and psychological test for vocational assessment and training.^{9,10,11}

Low Vision devices can be further divided into two types. Optical devices, which use lenses to magnify objects and non-optical devices and techniques, which make objects easier to use. A third category is electronic magnifier which is sometimes subsumed under non-optical devices.

Psychological assessment tests and training program is designed to develop a person's skill potential to the extent possible.

Currently, there are three low vision clinics in the former state of united Andhra Pradesh and only one is functioning clinic in the divided state of Andhra Pradesh.⁵ To meet the needs of the visually disabled persons and to improve their quality of life, the need for establishment of low vision rehabilitation centres at the level of teaching hospitals is strongly felt. This would encourage the individual in taking up jobs accordingly, which in turn would reduce the economic burden on the society and country.

In conclusion, visual rehabilitation is often ignored in the treatment of patients with eye disease. The cost of establishing visual rehabilitation services is not great and the need is there. Ophthalmology in India is obligated to ensure that appropriate magnifying devices and training are provided as part of the complete treatment of eye disease.¹²

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