

## Study on Awareness and Utilization of Rehabilitation Services among Visually Disabled Individuals

Tintu Susan Joy\*, Pavana Krishnaraj Acharya, Kavitha Chikkanayakanahalli Venugopal and Sudeep Navule Siddappa

Department of Ophthalmology, Hassan Institute of Medical Sciences, Hassan, Karnataka, India

\*Corresponding author: Tintu Susan Joy, Department of Ophthalmology, Hassan Institute of Medical Sciences, Hassan, Karnataka, India, Tel: + 919900419549; E-mail: tin2jysusan@gmail.com

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### Abstract

**Aim:** To study the awareness and utilization of various rehabilitation measures by visually disabled individuals.

**Methods:** A questionnaire based study was conducted on 100 people with visual disability of 40 percent or more during January 2016-May 2016.

**Results:** Out of 100 patients, 39 patients had 100 % visual disability, 23 patients had 75% visual disability and 38 patients had 40% visual disability. All the patients were aware about monetary benefits like monthly pension and concessions in travel fares, 12 patients knew about the educational scholarships and job reservations, 14 patients knew about special education and blind schools. 24 patients were already availing the monetary benefits. Other rehabilitation services utilized included low vision aids (1%), mobility training (12%), training in braille script or using special educational devices (14%), vocational training (7%) and job reservation (1%).

**Conclusion:** Although everyone knew about monetary benefits, only few patients were aware about other rehabilitation measures which help them to attain highest possible level of functional ability so that they lead an independent and self-sufficient life.

**Keywords:** Visual disability; Rehabilitation

### Introduction

In India, about five million people are suffering from visual disability [1]. Visually disabled includes blind people and people with low vision. Visual impairment causes difficulties in everyday living and can be associated with increased risk of depression, decreased functional status and quality of life. Intervention in the form of assistive aid or technological support is required for the disabled individuals for their mobility, daily living skills, to get education or employment and to compete with their counterpart in the society [2].

The certification for blindness is the process by which social services for the visually disabled is coordinated. The minimum degree of disability should be 40% for an individual to be eligible for any concessions or benefit according to the guideline of the Ministry of Social Justice and Empowerment of the Government of India [3]. Rehabilitation is operated primarily by the nodal agency Union Ministry of Social Justice and Empowerment [2]. It has been realized that a majority of persons with disabilities can lead a better life if they have equal opportunities and effective access to rehabilitation measures.

This study is undertaken to assess the rehabilitation measures utilized by visually disabled individuals and to assess their knowledge and attitude regarding various rehabilitation measures [4].

### Methods

A questionnaire based study was conducted in 100 patients with visual disability of 40% or more attending outpatient Department of Ophthalmology, during the study period January 2016-May 2016. After complete ophthalmic evaluation, percentage of visual disability was assessed (Table 1).

The aims and objectives of study were explained to the subjects and informed consent was taken. Data was collected as per the proforma (Figure 1).

Category	Better eye	Worse eye	Percentage impairment
Category 0	6/9-6/18	6/24-6/36	20%
Category I	6/18-6/36	6/60-Nil	40%
Category II	6/60-4/60 Field of vision 10-20°	3/60-Nil	75%
Category III	3/60-1/60 Field of vision 10°	FC at 1 ft- Nil	100%
Category	FC at 1 ft- Nil Field of vision 10°	FC at 1 ft- Nil	100%
One eyed person	6/6	FC at 1 ft- Nil Field of vision 10	30%

Adapted from-The guidelines & gazette notification issued by Ministry of Social Justice & Empowerment, Government of India, Regd No. DL33004/99 (Extraordinary) Part II, Sec. 1, June 13, 20012 (Note: F. C. means finger Count) [3].

**Table 1:** Categories of visual disability.

**Figure 1:** Proforma.

**Results**

In our study, the most common causes for visual disability were refractive errors (24%), congenital anomalies (18%) and retinitis pigmentosa (17%) (Tables 2-4).

Age (Years)	Number of Patients
<18	17
19-35	30
36-50	20
>50	33

**Table 2:** Age wise distribution of patients.

All the patients (100%) were aware about the monetary benefits of certifying disability. 16 patients knew about mobility training, 14 patients had heard about blind schools and special education, 12 patients were aware about job reservations and scholarships for visually disabled. 10 patients knew about vocational training and 4 had heard about low vision aids.

Gender	Number of Patients
Male	64
Female	36

**Table 3:** Gender distribution

24 patients were already availing monetary benefits, 14 patients had gone to blind school, and 12 patients had undergone mobility training and 7 vocational training. One patient was using low vision aid and one had got job due to reservation.

Percentage of Visual Disability	Number of Patients
40%	38
75%	23
100%	39

**Table 4:** Percentage visual disability

**Discussion**

"Blindness" refers to a condition where a person suffers from either total absence of sight or best corrected visual acuity not exceeding 6/60 or 20/200 in the better eye; or limitation of the field of vision subtending an angle of 20 degree or worse [3].

Causes of Visual Disability	Number of Patients
Refractive error	24
Congenital anomalies	18
Retinitis pigmentosa	17
Chronic uveitis	5
Primary optic atrophy	5
Advanced diabetic eye disease	5
Trauma	5
Others	21

**Table 5:** Causes of visual disability.

"Person with low vision" means a person with impairment of vision of less than 6/18 to 6/60 with best correction in better eye or impairment of field of vision in any of the following categories-reduction of fields less than 50 degrees or hemianopia with macular involvement or altitudinal defect involving lower fields [3].

Refractive errors (24%), congenital anomalies (18%) and retinitis pigmentosa (17%) were the major causes of disability in our study. Kareemsab et al. [5] also found that Congenital anomalies (22.11%), Refractive errors (19.85%) and Retinitis pigmentosa (18.01%) are the leading causes of visual disability. Hedge et al. [6] found that congenital malformations (29.21%), retinitis pigmentosa (26.59%), refractive errors with amblyopia (19.47%), corneal opacity related to trauma and infectious keratitis (8.23%), glaucoma (5.24%), phthisis bulbi (3.37%) and age related macular degeneration (1.12%) were the major causes of visual disability and the causes were preventable in 41.19% of the patients (Table 5).

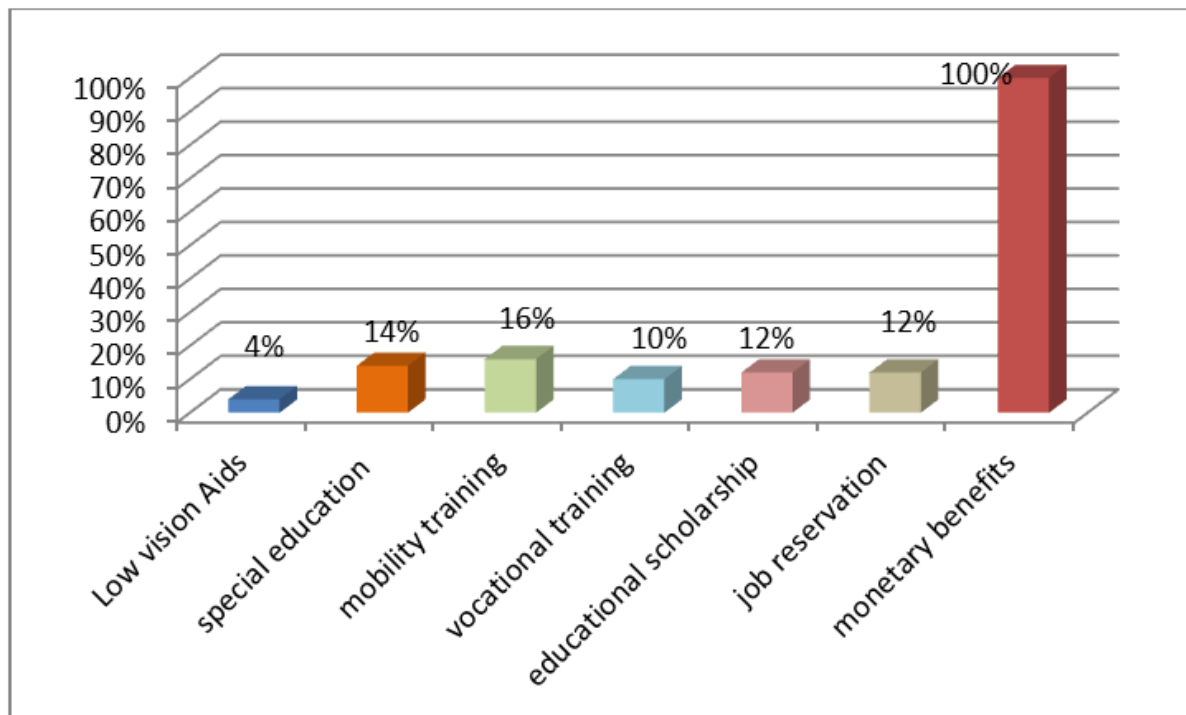


Figure 2: Awareness regarding rehabilitation services.

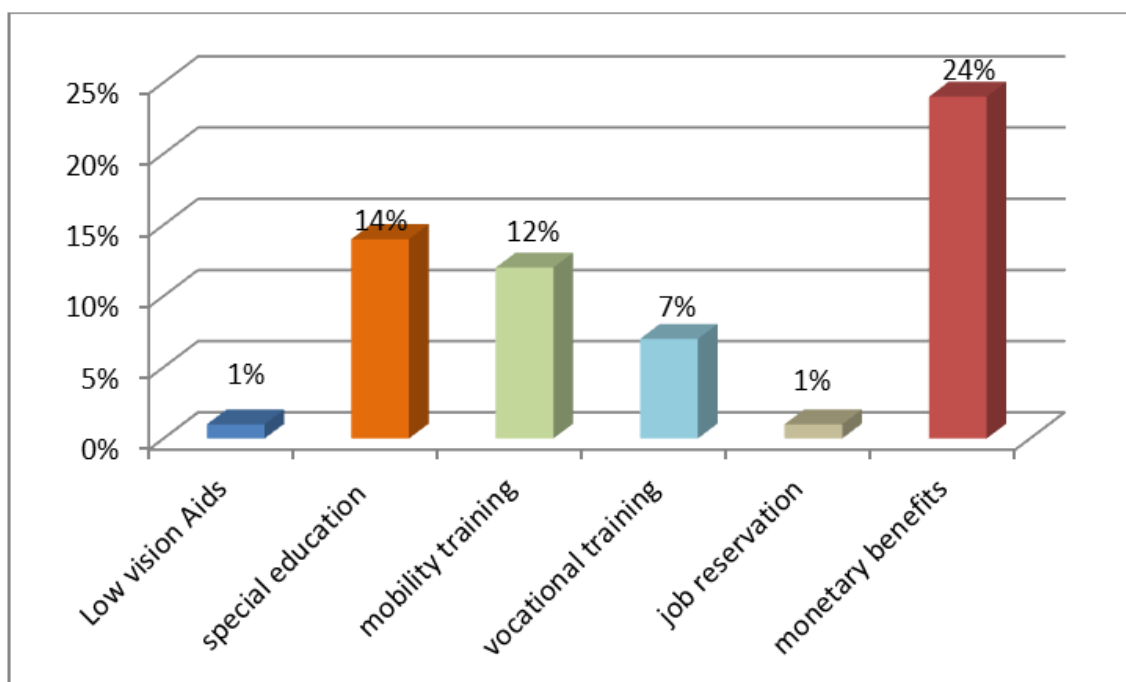


Figure 3: Utilization of rehabilitation services

According to Joshi et al. [7] causes of blindness were avoidable in 49.5% (diabetic retinopathy 12.9%, glaucoma, 12.6%, corneal scar 14.0%, Steven Johnson syndrome 9.0%, retinopathy of prematurity 1.1%) and not preventable in 50.5% (retinitis pigmentosa 15.1%, congenital ocular malformations 13.6%, optic atrophy 12.5%, hereditary diseases 8.3%, and age-related macular degeneration 1.1%) patients (Figures 2 and 3).

Blindness and vision impairment are one of the major public health problems in India that need to be addressed. There has been an evolutionary process in changing attitudes towards the disabled people and in the current era, there is a positive attitude towards the disabled individuals.

Rehabilitation involves combined and coordinated use of medical, social, educational, and vocational measures for training or retraining the individual to the highest possible level of functional ability. The strategies for rehabilitation of disabled include institution-based, outreach, and community-based strategies [3].

The program/schemes as proposed in Union Ministry of Social Justice and Empowerment for the rehabilitation of disabled individuals include: Deendayal disabled rehabilitation scheme, Scheme of assistance to disabled persons for purchase/fitting of aids/appliances (ADIP scheme), National awards for the welfare of persons with disabilities, National handicapped finance and Development Corporation, Science and technology project in mission mode. Concession offered by the Government of India to blind persons including travel, postage, Children education allowances, employment and economic assistance [3].

Our study attempts to analyze the awareness and utilization of various rehabilitative measures extended by the Government of India. Excluding the awareness about monetary benefits, the knowledge and utilization of other rehabilitative measures was considerably low amongst the patients included in the study.

## Conclusion

Persons with disability can lead a better quality of life if they have equal opportunities and effective access to rehabilitation measures

which will help them to attain the highest possible level of functional ability so that they lead an independent, self-sufficient and successful life.

However inspite of activities, programs/schemes, institutional structure and initiatives taken by the Government of India (GOI) for the rehabilitation of disabled and the incentives/benefits extended to blind persons, the awareness and utilization of the above was very low.

This study emphasizes the importance of creating awareness regarding the availability, access and provision of comprehensive services for the visually disabled individuals.

## Declarations

No financial support and sponsorship. There are no conflicts of interest.

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