

Barriers to Low Vision Services and Challenges Faced by The Providers in Pakistan

Momina Javed BSc. Optom, Tayyab Afghani MS, Kunza Zafar

Department of Orbit and Oculoplastics, Technical Advisor to LCIF for Pakistan and Middle East

Al-Shifa Trust Eye Hospital, Jhelum Road, Rawalpindi, Pakistan

(Received June 20, 2015: Revised July 4, 2015: Accepted July 11, 2015)

Abstract

Objective. There were two objectives of the study, first was to identify the barriers as perceived by the patients and providers to access the low vision services and second was to identify the challenges faced by the main providers.

Study design. Structured questionnaire based interviews of patients and providers

Methodology. To find out the barriers to access of low vision services, the interviews based on structured questionnaire were conducted for two patient groups. The first group consisted of 97 visually impaired individuals attending the department of low vision services at Al-Shifa Trust Eye Hospital Rawalpindi while the second group included 56 visually impaired individuals attending the four rehabilitation centers/schools for the blind in Rawalpindi/Islamabad. To identify the barriers as perceived by the main providers of low vision services and challenges faced by them the interviews based on structured questionnaire were conducted for 19 low vision service providers.

Results. From patients point of view, major barrier to low vision services identified was inability to visit hospital /rehabilitation center alone - 29.8% in hospital group and 33.9% in rehabilitation centers group, while the lack of social support, lack of family support, cost of travelling, long distance, afford ability, hesitation in using devices and lack of satisfaction were other important barriers identified. From providers' point of view, major barrier to uptake of services was the need for repeated follow-ups. Optometrists were the main provider of low vision services contributing to 47.4% of the providers. The major challenge faced by the providers was motivation of patients to use low vision devices.

Conclusion. The major barrier to low vision services according to the patients is inability to visit the hospital alone, while according to providers, it is the need for repeated follow up which proves major barrier towards uptake of services. The motivation is the major challenge faced by providers, majority of which are optometrists.

Key Words : Family support, Low vision, Motivation, Rehabilitation centers, Satisfaction

*Corresponding author :aqrepio@yahoo.com

1. Introduction

According to WHO, a person with low vision is one who has an impairment of visual functioning even after treatment and/or standard refractive correction, and has a visual acuity of less than 6/18(20/60) to light perception or a visual field of less than 10° from point of fixation, but who uses or is potentially able to use, vision for the planning and /or execution of a task.^[1] Low vision rehabilitation is a new emerging subspecialty drawing from the traditional fields of ophthalmology, optometry, occupational therapy, and sociology, with an ever-increasing impact on our customary concepts of research, education, and services for the visually impaired patient. A multidisciplinary approach and coordinated effort are necessary to take advantage of new scientific advances and achieve optimal results for the patient.^[2]

People with low vision can improve their quality of life through vision rehabilitation services which teach them how to use their remaining vision more effectively. Using a variety of visual and adaptive aids may bring them back or help them keep their independence. Integrated education of visually impaired children is now preferred when possible. Various studies have found low vision devices as an effective means of providing visual rehabilitation.^[3] Rehabilitation teaches patients how to adapt their environment appropriately in order to make the best use of their existing vision.^[4] However in many countries like Pakistan, uptake of low vision services is a major issue. The mismatch between need and uptake has been attributed to a number of key factors. These include poor distribution of services across urban and rural areas, portrayal of services as being only for the blind, patient transport difficulties, language

barriers, and poor awareness of low-vision services among patients and the low rate of referrals to low vision services.^[5] The present study was undertaken to find out the major barriers to the uptake of low vision services in Pakistan as well as the challenges faced by the providers.

2. Participants and Methods

Study Population

According to the study protocol, questionnaire based interviews were designed to collect information about the barriers to uptake of low vision services from patients as well as from providers. The providers were also interviewed to know the challenges faced by them in delivery of low vision services. To identify the barriers, two groups of patients were chosen. The first group consisted of 97 patients attending the department of low vision services at Al-Shifa Trust Eye Hospital, Rawalpindi, Pakistan (ASTEH). ASTEH is pioneer in development of comprehensive low vision services in Pakistan and has one of the well-equipped departments in the country. The second group consisted of 56 visually impaired individuals from four blind schools/ rehabilitation centers located in twin cities of Rawalpindi and Islamabad. The patients from both these groups ranged in age from 7-60 years. Only patients with single disability (low vision) were included in the study.

The providers who were interviewed to identify both the barriers and challenges included the professionals in the twin cities of Rawalpindi/Islamabad involved in the delivery of eye care services in both public and private sectors. Out of the thirty professionals selected, nineteen responded to interview and were

included in the study. These were nine optometrists, five ophthalmologists, two low vision specialists and special education teachers each and one low vision counselor.

Data collection method:

The interviews were conducted for all the participants through a structured questionnaire. The questionnaires have been annexed at the end. The interviews were conducted face to face by the lead investigator (MJ). The data was analyzed based on the answers provided by the respondents.

3. Results

This study has addressed two broad objectives one focusing on patient’s perspective while other focusing on provider’s perspective about low vision services-barriers and challenges.

Patient perspective

Age and Gender Distribution

In hospital group 54% were males and 46.3% were females. 33.7% were newly referred and 65.6% were follow-up patients. While in rehabilitation centers/schools for the blind, 62.5% were males and 37.5% were females. The majority of these were adults. In hospital 62.5% and in rehabilitation centers 61% patients were above 15 years of age. 54.7% in hospital group and 84.4% in rehabilitation group were students of different grades. Only 33.7% in hospital group and none of the individuals in rehabilitation centers group had to stop their education due to low vision.

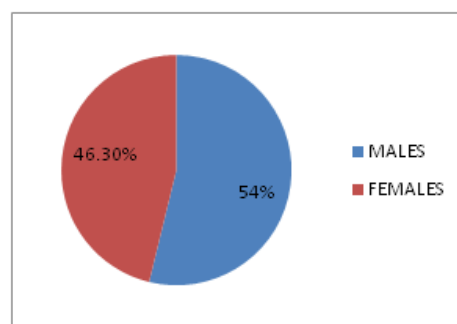


Fig.1: GENDER DISTRIBUTION IN HOSPITAL GROUP

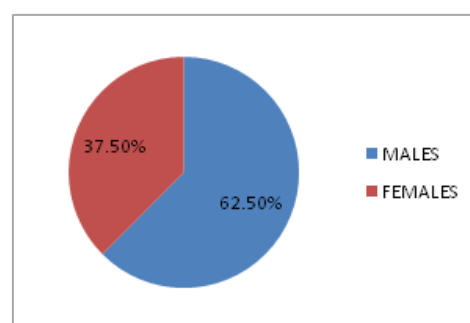


Fig. 2: GENDER DISTRIBUTION IN REHABILITATION GROUP

Analysis of the interview

1. Awareness about disease

17.3% of patient with low vision already knew about their disease causing low vision, while 56% were not aware of their disease. 26.7% had some knowledge about their disease.

2. Sources of awareness about low vision services

The results show that awareness was mainly through hospitals, 66.9% of the population has awareness through coming to the hospital. 32.2% of population had awareness through other resources (neighbors, relatives, colleagues, peers) and only 0.79% of population has awareness through media (internet, television programs, radio programs) about low vision services.

Table 1. Awareness amongst people about low vision services

Sources of awareness		Hospital patients		Rehabilitation centers	
		Number	%	Number	%
1	Hospital	59	61	35	62.5
2	Others	37	38	21	37.5
3	Media	01	01	00	00
Total		97	100	56	100

3. Barriers to avail services (Table 2):

Major barrier to low vision services identified was inability to visit hospital /rehabilitation center alone followed by difficulty to afford the low vision devices. This

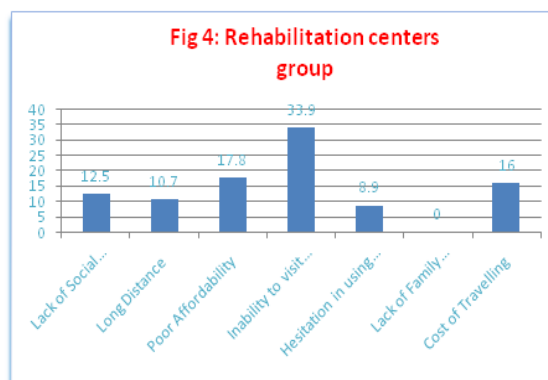
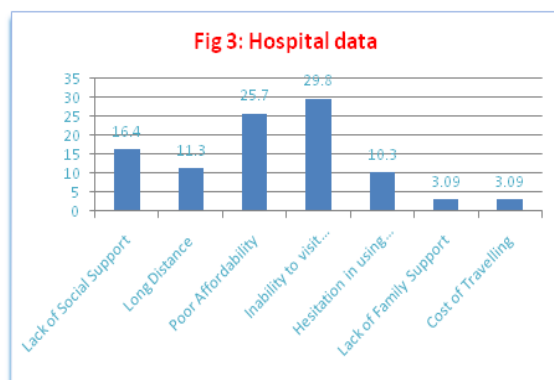
was followed by lack of social support to public use of devices, long distance, personal hesitation in using devices and lack of family support respectively.

Table 2. Barriers to low vision services (Patient’s Perspective)

Barriers	Hospital Patients		Rehabilitation centers/blind schools	
	No of patients	Percentages%	No of patients	Percentages%
Lack of social support	16	16.4	07	12.5
Long distance	11	11.3	06	10.7
Poor affordability for low vision devices	25	25.7	10	17.8
Inability to visit Hospital/Rehabilitation centers alone	29	29.8	19	33.9
Hesitation in using devices	10	10.3	05	8.9
Lack of Family Support	03	3.09	0	00
Cost of Travelling	03	3.09	09	16
Total	97	100	56	100

The pattern of barriers was almost identical in both the groups except that cost of travelling

was more significant barrier in people attending the rehab centers (Figs 3 and 4).



Figs. 3 & 4: Barriers to low vision services

Provider’s Perspective:

services responded to the interview based on structured questionnaire.

Nineteen potential providers of low vision

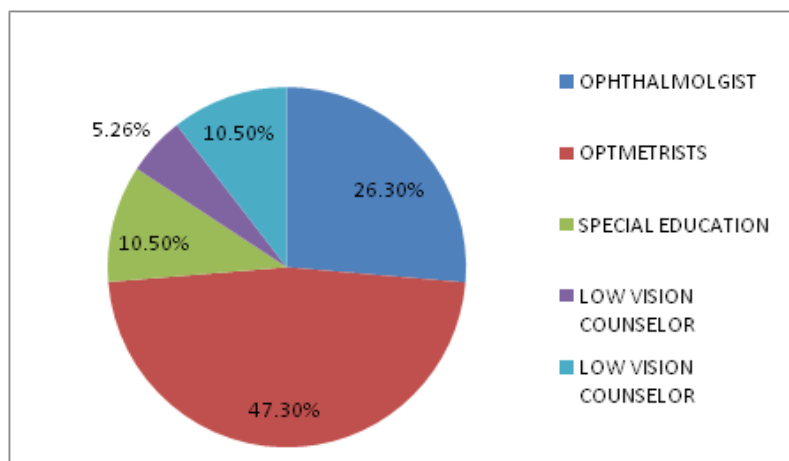


Fig 5. Potential Providers of Low Vision Services

Major source of referral for providers:

63.2% providers responded that their major referral of patients is from hospitals and 26.3% providers responded the major source of referral is other professionals. Only 10.5% providers felt that the majority of patients coming to them are their own-practice generated.

Major challenges that providers face in dealing with low vision patients (Table 3):

While the motivation was the major challenge identified by most of the providers, the other major challenges of the providers in dealing with low vision patients included satisfaction from low vision devices /management, ability to lead independent life and awareness about rehab.

Table: 3 Challenges faced by providers

Challenges	Percentage
Motivation	42.1
Satisfaction	26.3
Independent life	26.3
Awareness	5.3

Major constraints that providers face in provision of low vision services (Table 4):

The major constraints ophthalmologists faced in dealing with low vision patients was lack of appropriate knowledge about the problem, use of low vision devices and other management options. For optometrists and other providers, the major constraint was the practice time consumed in the management of low vision patients (bracketed under “Others”).

Table 4. Constraints in provision of low vision services (%)

Constraints for providers	Providers		
	Ophthalmologists (Nr = 5)	Optometrists (Nr = 9)	Other providers (Nr = 5)
Do not have access to low vision devices	20	11	00
Too expensive	00	22	20
Do not feel knowledgeable	60	22	20
Others (specify)	20	45	60

Provider’s perceived barriers to uptake of low vision services (Table 5):

Results show that major barrier towards

uptake of services according to providers was too many follow ups required for the patient (37%) followed by the distance the patient has to travel to avail the services (32%).

Table 5. Provider’s perceived barriers to uptake of low vision services

Barriers to uptake of low vision services	Percentage (Nr)
Slow improvement	21.1 (4)
Too many follow up	36.8 (7)
Long distance	31.6 (6)
Expensive devices	10.5 (2)

Key intervention areas for promoting access and utilization of low vision services; provider’s perspective (Table 6):

Measures to increase the uptake of low vision services identified by the providers included low

cost of devices, accessibility of services, awareness about services, use of media and increasing the number of rehabilitation resource centers. Majority (42%) of providers suggested that awareness of low vision services is the key factor to improve the uptake.

4. Discussion

Table 6. Measures to improve the uptake of low vision services as identified by providers

Suggested measures to improve the uptake of low vision services	Percentage
Reduce the cost of LV devices	26.3
Increase accessibility	5.3
Increase/create awareness	42.1
Use of electronic/print media	15.8
Establishing Resource Centers	10.5

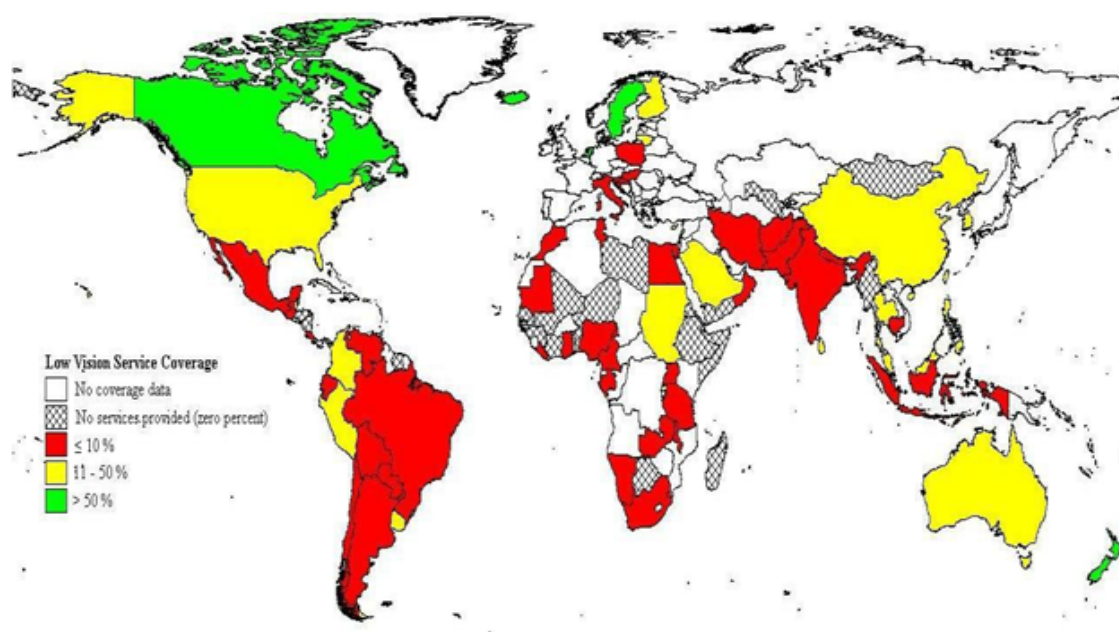


Figure 6: Global geographic distribution and coverage of low vision services (Adapted from Chiang PP, O'Connor P, Le Mesurier RT, Keeffe JE. *A Global Survey of Low Vision Service Provision. Ophthalmic Epidemiol.* 2011;18:109-2)

Low vision services are important because they help people improve their quality of life and maintain independence.^[6] For this purpose, not only we need effective services but we also must have comprehensive and adequate coverage of services. These services need to address not only vision but also the social, psychological, emotional, functional and economic consequences of low vision. However, of the 70 million people (out of the 124 million with low vision) who require or are likely to benefit from low vision services, approximately only 5% of the low vision population have access to services, a figure that was based on data from 22 countries at a 2001 WHO workshop in Hong Kong.^[7] A recent study conducted global mapping of low vision services (Fig. 6) and showed that among 178 (out of 195) countries that responded to this study survey, low vision services were reported to be present in 115 (64%) countries^[8].

However, out of these 115 countries with low vision services, 39 countries (34%) had $\leq 10\%$ coverage, 22 (19%) countries had coverage between 11% and 50%, and only 8 (7%) countries had coverage $>50\%$. Pakistan appears on the map with those countries with minimum coverage of low vision services (less than 10%). This survey also found that the low vision care being provided was mainly mono-disciplinary (clinical care or rehabilitation) and located mainly at the secondary and tertiary levels, particularly in developing countries. This is part of the reason as to why there is a poor coverage of services in countries like Pakistan.

The present study was a very small effort to find out the barriers to uptake of low vision services with regards to both patients and providers. This study showed that major identified barriers include inability to visit hospital/rehabilitation services alone, lack of social support, lack of family support, cost of travelling, long distance, poor affordability,

hesitation in using devices, and lack of satisfaction. The conclusions drawn by the global survey identified that people with low income, residing in rural areas, women, children, having disabilities, ethnic minorities, refugees, and elderly people were more likely to miss out on services.^[8] Other major barriers to access were cost, distance to the nearest service, lack of awareness of services that are available, poor or no referral networks, poor communication between clients and health professionals, and having the perception that “nothing more can be done”. A unique feature of our study is a comparison of barriers in patients with low vision from two different settings, from schools for the blind and from special education/rehab centers. Although the pattern of identified barriers to uptake of services was similar in most cases, yet the cost of travelling was much more significant in patients availing services at special education/rehab centers. The significance of this barrier is shared in a case study from Australia, where the low vision services are not part of the general ophthalmic care and are instead provided by NGOs such as Vision Australia and Guide Dogs. Although these NGOs provide comprehensive low vision care, referrals made at eye hospitals are not effective because the services are not located in the same building/vicinity. Thus, issues such as distance, transport and cost arise.^[9] Similarly another study found that issues relating to transport, needing an accompanying person, lack of information about the service and poor health were the main barriers. Like that of ours this study also identified the main barrier to access low vision services to be the of need of an accompanying person.^[3]

The issues relating to low vision devices were also important barriers identified by the

patients in our study (Cost of devices and hesitation to use the devices). This amounted to 36% in schools for the blind and 27% in special education/rehab centers. The recent global survey has also identified these issues in obtaining low vision devices, such as the stigma associated with using such devices, difficulties in using devices, and long waiting times (especially in rural regions).^[8]

The main barrier to uptake of low vision services shared by the providers in this study was different from that identified by the patients. According to the perception of the providers, the major barrier was need for too many follow-ups. Another barrier identified by providers was “slow improvement with low vision devices”. Chiang et al also identified that poor access to follow-up and lack of training provided for using low vision devices are some of the factors affecting their usage.^[8] Attitudes and reactions that the service is not required or the service would not be able to help have also been noted by others.^[10]

The current study also attempted to get some information about the constraints faced by the providers while offering low vision services. The ophthalmologists identified lack of training/knowledge about low vision problem/management as a major constraint. The optometrists and other rehab professionals saw the practice time taken to manage the low vision patient as an important constraint. Chiang et al has identified two major issues related to human resources in low vision care.^[8] First, it was found that the number of low vision specialists providing low vision care is relatively low across most nations. In Pakistan the exact data on the issue is not available although low vision has been included in the National Eye Care Plan and budget resulting in service implementation in

each of the four provinces has been catered for.^[11] Second, it was identified that most of the developing countries lacked formal training and professional development opportunities in low vision. Similar to the providers' constraints identified in our study the global survey on low vision services also found that ophthalmologists often do not have the time or interest in providing low vision care.^[8]

Apart from barriers and constraints, our study also attempted to get an opinion from the major providers of low vision service about the key intervention areas for promoting access and utilization of low vision services. Measures to increase the uptake of low vision services identified by the providers included low cost of devices, accessibility of services, awareness about services, use of media and increasing the number of rehabilitation resource centers. Majority (42%) of providers suggested that awareness of low vision services is the key factor to improve the uptake.

The cost of low vision devices (LVD) can be controlled by local production of these devices which can reduce the cost considerably. Al-Shifa Trust has been producing indigenous low cost LVD since 1995 and has considerable experience in dispensing of these devices. However this is only one aspect of sustainability. Due to the increasing demand for low vision care and the rapidly ageing population, the issue of long-term financial sustainability in the provision of low vision services remains a serious concern.

Regarding the awareness and other areas of intervention for achieving better coverage and availability of services and at providing comprehensive care for people with low vision, the two key strategies recommended are vertical and horizontal integration of low vision care into the existing systems.^[12] In

countries like Pakistan, the availability of low vision services can be improved through strengthening primary health care. Primary low vision care may become the first level of contact between low vision clients, their families and communities with low vision services, bringing care as close as possible to where people live and work. This could address issues related to long waiting times and unequal distribution of services between urban and rural regions. Basic low vision services such as refraction, simple optical and non-optical devices, and rehabilitation can be provided at primary eye care centers.^[12]

Regarding the providers' constraints (lack of knowledge and time etc), task shifting and training could be considered as a strategy to strengthen low vision human resources. Task shifting is the process of delegating tasks to less specialized health workers.^[12] Training ophthalmologists and optometrists takes a long time and it is expensive. Moreover, these professionals mainly work in urban regions. As a midterm measure, training mid-level ophthalmic personnel such as ophthalmic nurses and vision technicians becomes essential if the low vision human resource needs are to be met. Task shifting could overcome the barrier of reaching people in rural or remote areas, help lower the costs of care, and provide continued client-centered care in local communities.^[12] However the task shifting should not lead to task overloading. As a long term measure making low vision training a compulsory part of the curriculum for ophthalmologists and optometrists may ensure that these personnel have a minimum standard of knowledge in low vision rehabilitation. It would also improve the awareness of the eye care professionals to make appropriate referrals to low vision services. Additionally, informal

training sessions could be organized as part of conferences or other programs for professional development.

5. Conclusion

The major barrier to uptake of low vision services from patients' point of view is inability to visit the low vision care facility alone and from providers' point of view it is the need for too many follow-ups. The major constraints faced by providers are lack of knowledge and lack of time. Strengthening of primary health care is the key to improve the coverage of low vision services. Task shifting and training-both formal and informal, are important additional measures in this regard.

References

1. Pararajasegaram R. Low Vision Care: The Need to Maximise Visual Potential. *Community Eye Health* 17(49):1-2
2. Owsley C, McGwin G, Scilley K, Girkin CA, Phillips JM, Searcey K. Perceived barriers to care and attitudes about vision and eye care: focus groups with older African Americans and eye care providers. *Invest Ophthalmol Vis Sci* 2006;47:2797-802.
3. Keeffe JE, Lovie-Kitchin JE, Taylor HR. Referral to low vision services by ophthalmologists. *Aust N Z J Ophthalmol* 1996;24:207-14.
4. Markowitz S. Principles of modern low vision rehabilitation. *Canada J Ophthalmology*. 2006;41:289-312.
5. Hornby S, Adolph S, Gothwal VK, Gilbert CE, Dandona L, Foster A. Evaluation of children in six blind schools of Andhra Pradesh. *Indian J Ophthalmology*. 2000; 48:195-200.
6. Scott IU, Smiddy WE, Schiffman J, Feuer WJ, Pappas CJ. Quality of Life of Low-Vision Patients and the Impact of Low-Vision Services. *American Journal of Ophthalmology* 1999;128(1):54-62.
7. World Health Organization. Vision 2020 the Right to Sight: Global Initiative for the Elimination of Avoidable Blindness: Action Plan 2006-2011. Geneva: World Health Organization, 2007:89.
8. Chiang PP, O'Connor P, Le Mesurier RT, Keeffe JE. A Global Survey of Low Vision Service Provision. *Ophthalmic Epidemiol*. 2011;18:109-2
9. O'Connor PM, Mu LC, Keeffe JE. Access and Utilization of a New Low-Vision Rehabilitation Service. *Clin Exp Ophthalmol*. 2008;36:547-52
10. Matti A, Pesudovs K, Daly A, Brown M, Chen C. Access to low-vision rehabilitation services: barriers and providers. *J Clinical and Experimental Optometry*. March, 2011; 94(2):181-186.
11. Keeffe J, Roberts J, Yasmin S. Evaluation of the Pakistan National Low Vision Programme. Melbourne: Centre for Eye Research Australia; 2005.
12. Chiang PP, Marella M, Ormsby G, Keeffe J. Critical issues in implementing low vision care in the Asia-Pacific region. *Indian J Ophthalmol*. 2012 Sep-Oct; 60(5): 456-459.