Recognising and Reducing Barriers to Cataract Surgery

Susan Lewallen MD
Paul Courtright DrPH
British Columbia Centre for Epidemiologic & International Ophthalmology
St Paul's Hospital, Vancouver, BC Canada

Reaching the goals for increased cataract surgical coverage set out in the Vision 2020 programme will require great effort. Cataract surgical coverage is inadequate in many places, for obvious reasons such as lack of trained manpower and supplies. Even when services are available, however, there are barriers which keep patients from utilising the services. In countries as diverse as India, Brazil, and Malawi it has been shown that 33-92% of cataract blind patients remain cataract blind, even when surgery is available. Understanding why people do not present for surgery and modifying our programmes to reduce these barriers is critical if we are going to increasecataractsurgicalcoverage.

Cost of Surgery

The cost of cataract surgery varies widely and may be more than poor people, with little or no disposable income, can afford. It would be a mistake to assume, however, that providing free cataract surgery automatically leads to high cataract surgical coverage. In addition to the surgery itself, there are other costs such as transportation to the hospital, loss of work for the patient or the carer accompanying the patient, and living expenses for the carer while the patient is in the hospital. In Nepal, these non-surgical costs alone were estimated to be one-fifth of the annual income of a rural patient.[1] In India, reducing the cost of surgery and providing transportation expenses for the patient has significantly increased the acceptance of cataract surgery.[2] Studies in India have demonstrated that most people are willing to pay approximately the average monthly income of their families for high quality cataract surgery. There have been innovative approaches to provide high quality services at a lower cost, and testing and implementing these in other settings should become a priority.

Cost, as a barrier, may be reduced by:

- decreasing the costs of surgery by reducing the cost of supplies and equipment and improving efficiency
- implementing different pricing mechanisms to make sure that the poor can receive surgery even if they cannot pay
- reducing the non surgical costs such as transportation and expenses for carers.

Distance to the Hospital

Most cataract blind live in rural areas while most ophthalmologists live in urban areas. Use of western medical services (including those for cataract) is related to proximity; people who live far from a hospital tend not to use its services. In Malawi, traditional healers who live far from the hospital provide more 'cataract treatment' than traditional healers living near hospitals.[3] People will use what is most available to them first (see also M Jalaluddin Khan's article: Bangladesh Model of Eye Care: page 24).

Distance as a barrier may be reduced by:

- setting up outreach programmes in rural areas
- providing transportation (from villages direct to the hospital and return).

A rural clinic and provision of transport in Uganda
Photo: Murray McGavin

Cultural and Social Barriers

There is an increasing amount of data demonstrating that women are significantly less likely to receive cataract surgery than men, [1,4-6] in spite of the fact that cataract surgical rates in women are slightly higher than those in men. There are many reasons for this: women are less likely to be literate and have access to information about services; women may not have the necessary social support within the household or community to allow them to receive care; women often do not have adequate control over household financial resources, and women are generally less able to travel outside the village to seek services.

The concept of blindness is understood differently in different societies and differently among members of the same society.[7] Generally, as societies become more developed, expectations of vision increase. In any society, a patient's visual function (a measurement of the important vision-dependent tasks that he or she can do) is a more important measure of the need for cataract surgery than visual acuity alone. In one developing country, being turned away because the cataract was not yet 'mature' was a major reason given by blind patients for not having had surgery.[8]

Cultural and social factors as barriers may by reduced by:

- targeting educational efforts in women's groups
- creating support mechanisms for elderly women
- teaching the public that blindness is not an inevitable part of ageing
- educating health care personnel about visual function and its importance in selecting patients for cataract surgery
- making eye care services 'user friendly' and so culturally acceptable.

Knowledge of Services

Community based education about cataract has not been undertaken in most areas; when it is, the demand for surgery will increase. Not only must patients be made aware of the existence of the service, but they need to know what to expect:

- how long surgery will take?
- what will it cost?
- will it be painful?

Health care workers at the village level must be made aware of existing services.

Lack of knowledge of services as a barrier may be reduced by:

- using health workers (including community based rehabilitation workers) and/or traditional healers to find, screen and educate patients about cataract surgery
- using successfully operated patients as educators and motivators
- educational campaigns using available media resources.

Trust in Outcome of Surgery

While satisfied cataract patients can serve as excellent motivators for others to have surgery, patients with poor results can have the opposite effect. Fear of a poor outcome may be a legitimate reason for patients to refuse cataract surgery. Programmes must provide consistently high quality cataract surgery with good outcomes if patients are to develop trust in the programme. It has been shown in India that the conversion from aphakic spectacles to IOLs led to a significant increase in cataract surgical coverage.[8] In cultures (e.g., Egypt, Tibet) in which women do not like to wear glasses, the conversion to high quality IOLs may help decrease the gap between men and women.

Lack of trust in a good outcome as a barrier may be reduced by:

- additional training of surgeons to ensure that cataract surgery is high quality (monitoring of outcomes may assist this)
- transition to IOL surgery as soon as possible
- avoiding waiting lists which mean that patients have to return for surgery.

Barriers will vary according to local conditions and customs. Conversations with patients, village leaders, and women's groups may confirm the existence of barriers such as those listed above or reveal unexpected ones. Programmes planning to increase cataract surgical rates will need to determine the barriers in each area, whether relating to costs, distance, cultural/social factors, anxiety/fear or other barriers, and find creative ways to overcome them.

References

1 Brilliant GE, Brilliant LB. Using social epidemiology to understand who stays blind and who gets operated for cataract in a rural setting. *Soc Sci Med* 1985;**21**:553-58.

2 Ellwein LP, Lepkowski JM, Thulasiraj RD, Brilliant GE, the Operations Research Group. The cost effectiveness of strategies to reduce barriers to cataract surgery. *Int Ophthalmol* 1991;**15:**175-81.

3 Courtright P. Eye care knowledge and practices among Malawian traditional healers and the development of collaborative blindness prevention programmes. *Soc Sci Med* 1995;**41**:1569-75.

4 Brilliant GE, Lepkowski JM, Zurita B, Thulasiraj RD, the Operations Research Group. Social determinants of cataract surgery utilization in south India. *Arch Ophthalmol* 1991;**109**;584-89

5 Courtright P, Kanjaloti S, Lewallen S. Barriers to acceptance of cataract surgery among patients presenting to district hospitals in rural Malawi. *Trop Geogr Med* 1995;**47**:15-18.

6 McCauley AP. Primary eye care: rural Balinese attitudes towards eye care and cataract surgery and suggestions for increasing demand for eye care services. Helen Keller International, New York, 1986.

7 Lane SD, Mikhail BI, Reizian A, Courtright P, Marx R, Dawson CR. Sociocultural aspects of blindness in an Egyptian delta hamlet: visual impairment vs. visual disability. *Med Anthropol* 1993;**15**:245-60.

8 Vaidyanathan K, Limburg H, Foster A, Pandey RM. Changing trends in barriers to cataract surgery in India. *Bull WHO* 1999;**77**:104-9.

☆ ☆ ☆