Reducing the barriers to the uptake of cataract surgical services in a tertiary hospital

Catherine U Ukponmwan
Omoti E Afekhide
Odarosa M Uhunmwangho

Department of Ophthalmology
University of Benin Teaching Hospital
Benin City
Edo State

Author for Correspondence
Dr C.U. Ukponmwan
Department of Ophthalmology
University of Benin Teaching Hospital
PMB 1154 Benin City
Nigeria

E mail:
kateukponmwan@yahoo,com

Accepted17th March, 2010

ABSTRACT

Background: Cataract is a major cause of avoidable blindness and is responsible for about 50% of global blindness.
Objective: To determine the effect of reducing barriers to the uptake of cataract surgical services at the University of Benin Teaching Hospital, Benin City, Nigeria.
Study Design and Methods: A comparative retrospective study of the number of cataract surgeries performed from January 2005 to December 2008 was carried out. A joint partnership between the Ophthalmology Department, the hospital management and a non-profit, non-governmental organization (NGO) was established to tackle the barriers of awareness, access and high cost of surgery to the uptake of cataract surgery from January 2005. The Ophthalmology Department and hospital management agreed to perform cataract surgeries free for all cataract patients while the NGO provided all the consumables required. The number of cataract surgeries performed was obtained from the theatre records and the data obtained analysed for the number of surgeries done per year.
Results: The total number of cataract surgeries performed was seventy five (75), one hundred and twenty nine (129), one hundred and six (106) and three hundred and eighty-three (383) for the years 2005, 2006, 2007 and 2008, respectively showing a significant increase in the year 2008. Poor awareness, the bureaucracy of the referral system and high cost of surgery were identified as barriers to the uptake of cataract surgical services at the University of Benin Teaching Hospital. Publicity through the mass media, direct presentation of patients to the eye clinic for screening and providing cataract services free to all patients were methods used to overcome these barriers.
Conclusion: Cataract surgical output can be increased by concerted effort and joint partnership among stakeholders in the eye care sector by recognising and reducing the barriers to the uptake of cataract surgical services.

Keywords: *barriers, cataract, surgical services, tertiary hospital*

INTRODUCTION

Cataract is known to be the major cause of avoidable blindness responsible for about 50% of global blindness. [1] It is also one of the target priority areas of VISION 2020.[2] The trend for many tertiary hospitals with well equipped eye departments and trained manpower has been a low cataract surgical output due to various identified barriers such as poor level of awareness, poor access, poor acceptance, bad surgery and high cost.[3-5] The result is a vicious cycle in which hospitals charge exhorbitant prices for cataract surgery which is beyond the reach of the average individual. This makes it less affordable resulting in fewer patients, which translates to fewer opportunities for doctors to improve on their surgical skills, train residents in surgical skills and improve quality of care. This leads to poor surgical outcome, patient mistrust and dissatisfaction and fewer patients coming to the hospital thus imposing higher pricing by the hospital to make up for the deficit. [3-5]

The aim of this study is to analyse the paragraph measures put in place to increase cataract surgical output at the University of Benin Teaching Hospital, Benin City and to review the outcome.

MATERIALS AND METHODS

Prior to intervention, stakeholders meetings were held between the Staff of the Department of Ophthalmology, the management of the University of Benin Teaching Hospital, Benin City, Nigeria and a non-profit non- governmental organization (NGO) called Amen Foundation. A differential pricing system based on socio-economic class was created by the management for cataract patients

viz; the paying and the non-paying patients. The cost of cataract surgery for the non-paying patients was shared between the management of the hospital, the NGO and the patients.

The hospital provided the technology, infrastructure, manpower and a few consumables (such as theatre, operating microscope, sterile equipments, guaze and drapes) and free admission for three days (pre-operative day, operative day and first post-operative days). The NGO provided the consumables (intraocular lenses, local anaesthetics, viscoelastic substances, sutures and initial stock supply of drugs for the patients). Patients who came for screening paid an initial registration fee of N200 which caters for card, initial preoperative examination such as the use of dilating drugs and stationeries and were placed on a waiting list if eligible for cataract surgery. Screening days for non-paying patients are Mondays and Thursdays. They present directly to the Eye Department without referrals by passing the bottle neck at the General Practice Clinic (GPC).

The patient pays N600 for case note instead of the normal fee of N2,000 and subsequent admission days if necessary, follow-up visit in clinic which costs N500 and restocks his drug supply if exhausted from the hospital pharmacy at the prevailing rate. The paying patients spend about N35,000 for surgery which includes the cost of surgery and drugs, excluding admission fees (which cost N1000 per day) were placed on the next available theatre session list. The hospital provides the consumables for the paying patients. Paying patients were seen on clinic days viz Tuesdays, Wednesdays and Fridays.

The 'free' cataract surgery was well publicised in the mass media and launched at the close of the year 2007 to commence at the beginning of 2008 The hospital cost recovery methods included a high patient turnover rate with increased clinic attendance and increased bed occupancy rate. Other methods of income generation were sales of eye drops and other medicines, a functional optical workshop with sales of spectacles and increase in other surgeries performed such as pterygium excision, trabeculectomy and chalazion surgeries which occurred due to increased case finding from the screening.

The number of cataract surgeries performed was obtained from theatre records from January 2005 to December 2008. The data obtained were analysed for number of surgery done per year.

RESULTS

The number of cataract surgeries performed from January 2005 to December 2008 is shown in Table 1. It was observed that the total number of cataract surgeries performed was seventy five (75), one hundred and twenty nine (129), one hundred and six (106) and three hundred and eighty three (383) for the years 2005, 2006, 2007 and 2008, respectively showing a significant increase in the year 2008. There was a statistically significant difference in the number of surgeries performed per year from 2005 to 2007.

Table 1: Number of cataract surgeries performed between January 2005 to December 2008

Month	2005	2006	2007	2008
January	Strike action	10	9	44
February	6	6	10	33
March	Nil	14	7	36
April	9	7	68	25
May	11	15	9	24
June	4	16	3	27
July	6	9	11	37
August	14	20	11	34
September	11	9	8	22
October	5	7	3	40
November	5	10	4	36
December	4	6	10	25
Total	75	129	106	383

One way analysis of variance (ANOVA)
F= 15.380 (P = < 0.0001)

DISCUSSION

Cataract surgical output which is the total cataract operations performed by a health facility in a given period is a pointer on the utilisation of cataract services in any given population.[6-8.] Barriers to cataract surgery uptake that have been identified include poor awareness, poor access, poor acceptance, bad surgery and high cost. Cost include both direct such as cost of surgery, and indirect such as lost earning capacity by the escort, and transportation of the escort and cataract blind to the health facility.[9, 10]

The results of this study showed a definite increase in the cataract surgical output from 75 in 2005 to 383 in 2008. This has been attributed to addressing the barrier of awareness by the vigorous public enlightenment campaign in the mass media which enabled the patients to make informed decision and present for surgery; the barrier of acceptance may have been reduced by the health talks in the mass media which helped to allay the fears and misconceptions of cataract surgery. The highly subsidised cost of surgery has also helped to increase the output. This has been done without a significant decrease in the hospital's internally generated revenue by creating other avenues of income generation. The increase of April 2007 was as a result of a free cataract surgical outreach organised by the hospital in conjunction with the NGO.

However, the low output could be attributed to the limited bed capacity which necessitates the rebooking of some patients when the ward is full, two theatre sessions per week which limits the number of surgeries done per week and being a training centre the teaching load by the consultants to the residents which involves imparting surgical skills further slowed down the number of surgeries performed. This was also found in a similar study.[6]

The relative decline in the number of surgeries performed for the months of April to June can be attributed to two community based cataract surgical outreach programmes organised by other NGOS in conjunction with the first lady of the State in the months of April and May respectively. This shows the negative impact of such well intentioned outreaches on growing local surgical bases stripping the local hospital of revenue and sizeable flow of patients to improve and maintain surgical skills of the surgeon. This finding has also been documented by other studies.[4]

CONCLUSION

Cataract surgical output can be increased by concerted effort and joint partnership among stakeholders in the eye care sector by recognising and reducing the barriers to the uptake of cataract surgical services.

ACKNOWLEDGEMENT

We wish to acknowledge the invaluabe contribution of the Chief Medical Director and the entire management of the University of Benin Teaching Hospital, Amen Health Care and Empowerment Foundation and all the members of staff of the Department of Ophthalmology, UBTH to the success of the free cataract surgery programme in the hospital.

REFERENCES

1. Thylefors B, Negrel AD, Pararajasegaram F and Dadzie K. Global data on blindness. Bulletin WHO 1995, 73 (1); 115-121.
2. World Health Organization, Geneva. Global Initiative for the Elimination of Avoidable Blindness. Geneva WHO/PBL/97.61.
3. Babalola OE, Abiose A and Murdoch I. Patients selection and personnel ultilisation in rural cataract surgery: A Nigerian experience. *Niger J Ophthalmol.* 1993, 2: 16-20.
4. Fafowora OF, Ajibode HA, Fadamiro CO, Ajewole AA, Ogundipe AO and Osuntokun OO. University/Community Partnerships; A Key to qualitative rural eye care in a depressed economy *Niger J Ophthalmol* 1995; 3: 9-11.
5. Tan L. Increasing the volume of cataract surgery: an experience in rural china. *Comm Eye Health J* 2006; 19: 61-63.
6. Chuka-Okosa CM. Cataract surgical output -Experience at the Royal Victoria Hospital, the Gambia. *Niger J Surg Sc.* 2002, 12:8-12.
7. Foster A. A simple method for evaluating

surgical cataract services in prevention of Blindness Programmes. *Comm Eye Health J*. 1992; 10: 2-3.

8. Ezepue UF. The problem of cataract backlog in Anambra and Enugu states of Nigeria: A solution in Community Outreach Services. *Niger J Ophthalmol* 1993; 2: 21-28.
9. Lewallen S and Courtright P. Recognising and Reducing Barriers to Cataract Surgery. *Comm Eye Health J* 2000; 13: 20-21.
10. Francis V. Editorial : Cataract Services, increasing utilization and creating demand. *Comm Eye Health J* 2006; 19: 1-3.